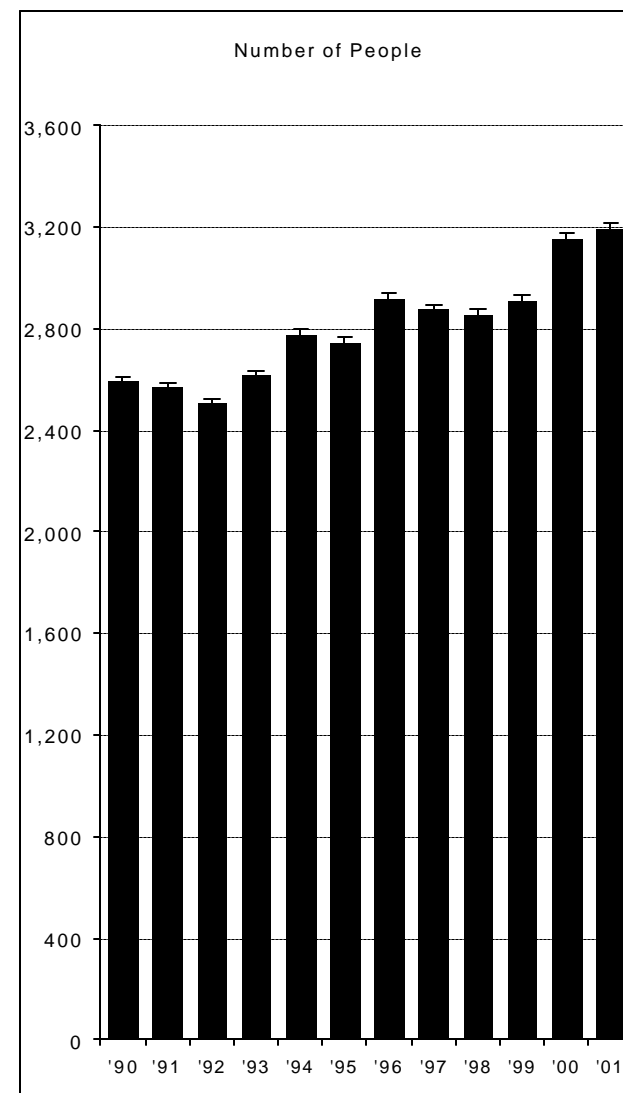
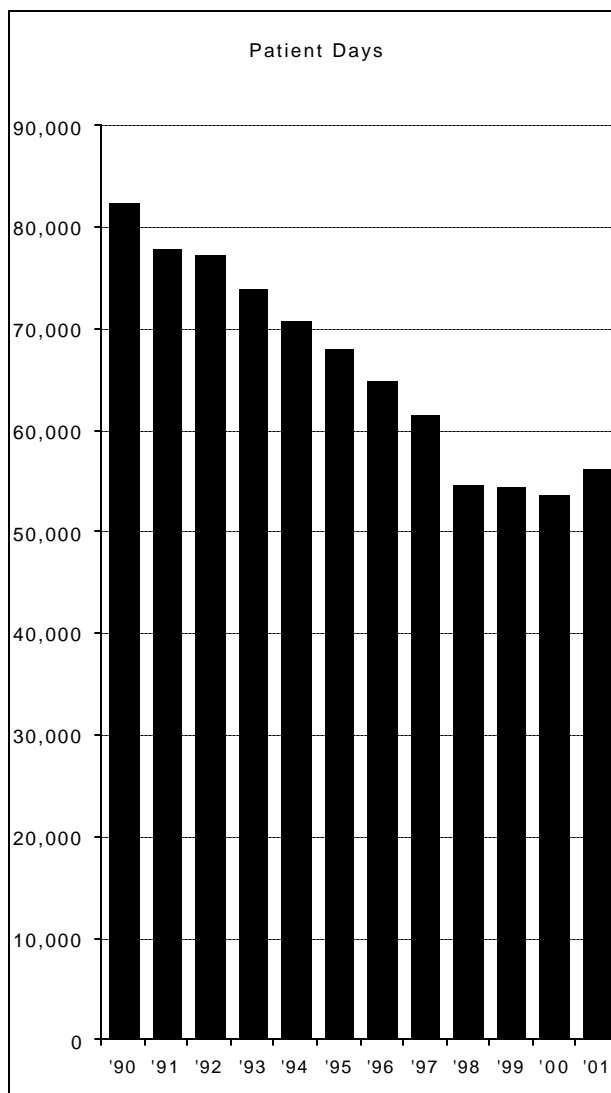
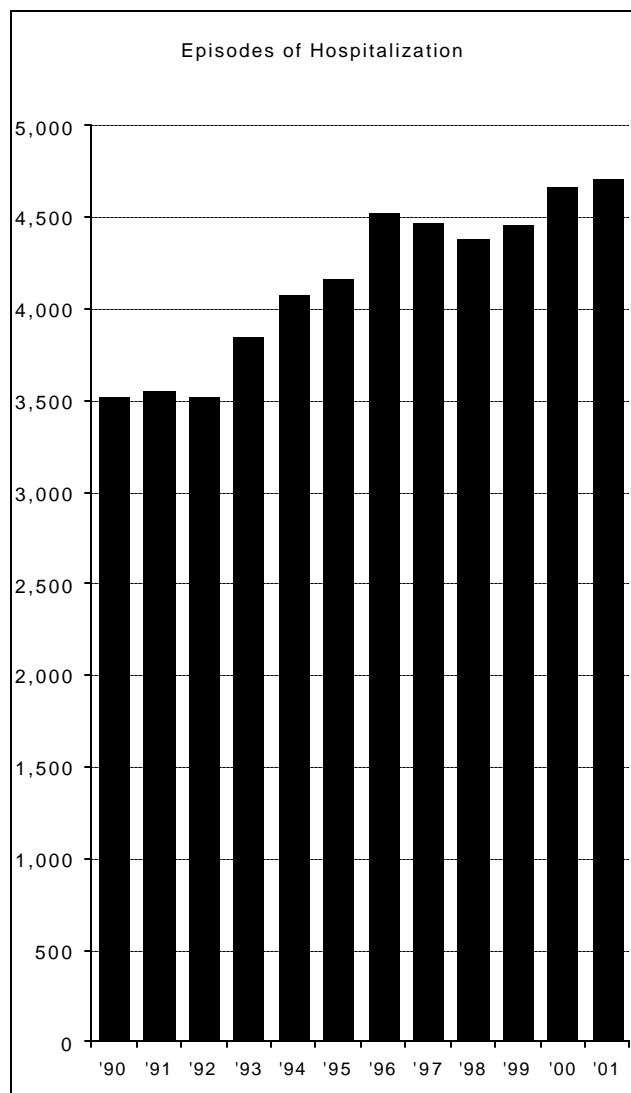


INPATIENT BEHAVIORAL HEALTH CARE SERVICES

Provided to Vermont Residents During 1990-2001



Prepared by The Vermont Mental Health Performance Indicator Project

REVISED
September 2003

Inpatient Behavioral Health Care Services

Provided to Vermont Residents

During 1990-2001

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INTRODUCTION

This is a revised edition of the 1990-2001 DDMHS Inpatient Data Book. The August 2003 edition, included an over count of patient days and episodes of care at the Brattleboro Retreat for 2000-2001. This over count had a relatively small effect on the statewide count of episodes of care (1.5%) and a larger effect on the number of patient days (+9%). The impact on Brattleboro Retreat statistics, however, was substantial.

This report provides a statistical overview of the utilization of inpatient facilities by Vermont residents for psychiatric and substance abuse services during 1990 through 2001. Episodes of hospitalization that occurred in general hospitals in Vermont, New Hampshire, Massachusetts, and New York and in the Vermont State Hospital, the Brattleboro Retreat, and Veterans Administration Hospitals in Vermont and Massachusetts are included in this overview. The report provides detailed information on utilization of inpatient behavioral health care by Vermont residents, including episodes of hospitalization, patient days, and unduplicated numbers of people served. This information is provided for each of the state's counties and for each of six categories of facilities. Utilization profiles are presented for mental health and for substance abuse treatment, for young people and for adults. A detailed methodological appendix provides information on the databases used to prepare this report and the methodology for deriving unduplicated counts of people served without reference to unique person identifiers.

HIGHLIGHTS

Numbers of people served and episodes of care increased substantially during the last two years of the report period.

- The number of people hospitalized continued a long term trend with a 10% increase between 1999 and 2001.
- The number of episodes of care also continued a long term trend with a 6% increase between 1999 and 2001.
- The number of patient days reversed a long term trend by increasing by 3% between 2000 and 2001.

There were significant differences between counties, gender, and age groups in rates of inpatient behavioral health care.

- In recent years, Rutland, Windsor, and Windham have had the highest utilization rates.
- Men and women had similar hospitalization rates, overall, although differed considerably between different types of facility. Men, for instance, accounted for almost two-thirds (65%) of VSH patients, but less than half (43%) of general hospital patients.
- There were differences within age groups. Over the past five years, the utilization rates for youth under 21 years of age increased by 46%; the utilization rate for adults aged 36 to 50 increased by 22%, and the utilization rate for Vermonters over 65 years of age decreased by 22%.

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Episodes of Hospitalization
for Behavioral Health Care
Vermont Residents: 1990 - 2001

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	3,523	3,550	3,515	3,846	4,079	4,164	4,528	4,464	4,382	4,459	4,671	4,714
VT General Hospitals	2,060	1,986	2,020	2,069	2,231	2,142	2,514	2,576	2,451	2,586	2,713	2,644
Vermont State Hospital	488	501	401	382	405	381	354	380	309	293	261	300
Brattleboro Retreat	226	242	256	346	377	519	639	678	761	712	850	937
VA Hospital - WRJ	218	224	235	241	260	254	236	236	236	255	260	228
New Hampshire Hospitals	494	553	504	662	703	730	679	482	500	503	492	474
Other Out-of-State Hospitals	37	44	99	146	103	138	106	112	125	110	95	131

Episodes of Hospitalization by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	3,523	3,550	3,515	3,846	4,079	4,164	4,528	4,464	4,382	4,459	4,671	4,714
Addison	113	114	124	148	156	153	199	196	168	254	226	231
Bennington	219	250	229	290	296	345	332	233	231	238	259	281
Caledonia	150	154	153	188	159	181	183	168	151	145	156	163
Chittenden	818	824	706	760	838	759	754	834	811	752	878	820
Essex	31	33	35	35	33	36	44	37	42	37	28	35
Franklin/Grand Isle	155	168	192	186	185	151	220	190	172	165	212	237
Lamoille	105	118	95	103	100	100	108	120	120	145	149	153
Orange	159	175	179	210	161	188	196	167	152	169	187	194
Orleans	165	162	146	186	196	165	158	164	142	192	153	154
Rutland	364	389	394	367	412	450	446	471	595	634	726	737
Washington	491	439	489	450	521	491	606	630	481	474	528	533
Windham	273	276	316	388	420	525	637	676	699	605	530	572
Windsor	463	438	454	522	585	595	624	554	590	578	618	564
Unknown	17	10	3	13	17	25	21	24	28	71	21	40

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Table 1-2
Episodes of Hospitalization Per 100,000 Population
for Behavioral Health Care
Vermont Residents: 1990 - 2001

Episodes per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	626	626	615	664	697	704	758	747	730	738	767	770
VT General Hospitals	366	350	354	357	381	362	421	431	408	428	446	432
Vermont State Hospital	87	88	70	66	69	64	59	64	51	48	43	49
Brattleboro Retreat	40	43	45	60	64	88	107	113	127	118	140	153
VA Hospital - WRJ	39	40	41	42	44	43	40	39	39	42	43	37
New Hampshire Hospitals	88	98	88	114	120	123	114	81	83	83	81	77
Other Out-of-State Hospitals	7	8	17	25	18	23	18	19	21	18	16	21

Episodes per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	626	626	615	664	697	704	758	747	730	738	767	770
Addison	343	343	370	435	453	439	566	556	474	712	628	638
Bennington	611	697	636	798	809	938	899	633	628	646	700	758
Caledonia	539	550	543	659	552	623	625	574	514	491	525	546
Chittenden	621	619	525	555	604	540	530	584	564	518	599	555
Essex	484	516	547	543	510	554	676	572	651	574	434	541
Franklin/Grand Isle	342	365	411	390	382	306	439	377	337	319	405	448
Lamoille	532	587	465	493	469	461	489	538	531	633	641	651
Orange	608	665	675	781	592	684	707	602	546	603	663	684
Orleans	686	668	597	749	780	649	615	637	549	737	582	582
Rutland	586	626	633	585	653	710	701	744	942	1,003	1,145	1,161
Washington	894	796	882	802	921	861	1,055	1,099	837	821	910	915
Windham	656	660	752	911	978	1,211	1,459	1,550	1,598	1,377	1,199	1,288
Windsor	857	806	831	944	1,048	1,057	1,100	978	1,039	1,013	1,076	978
Unknown	3	2	1	2	3	4	4	4	5	12	3	7

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 1-3
Patient Days
for Behavioral Health Care
Vermont Residents: 1990 - 2001

Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	82,315	77,816	77,269	73,955	70,786	67,986	64,919	61,548	54,548	54,418	53,596	56,101
VT General Hospitals	22,835	22,066	22,287	21,291	20,962	19,498	20,034	19,781	18,114	20,054	19,075	19,599
Vermont State Hospital	41,265	37,143	35,130	31,602	27,778	27,059	23,452	23,827	19,961	19,815	17,963	19,039
Brattleboro Retreat	7,165	6,288	5,538	7,265	7,589	9,735	12,373	11,709	10,635	8,782	11,308	11,054
VA Hospital - WRJ	3,442	3,244	5,389	3,474	3,792	3,667	3,086	1,850	1,484	1,493	1,543	1,745
New Hampshire Hospitals	7,106	8,523	7,068	8,859	8,482	6,058	4,968	2,990	2,821	3,099	2,722	3,257
Other Out-of-State Hospitals	502	552	1,857	1,464	2,183	1,969	1,006	1,391	1,533	1,175	985	1,407

Patient Days by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	82,315	77,816	77,269	73,955	70,786	67,986	64,919	61,548	54,548	54,418	53,596	56,101
Addison	1,988	1,695	2,329	2,750	2,278	2,414	3,051	2,918	2,041	2,768	2,345	2,479
Bennington	3,871	4,167	3,740	4,137	4,570	4,560	4,048	3,728	2,680	2,443	2,799	3,387
Caledonia	2,934	3,122	2,672	2,333	2,173	1,946	2,049	1,964	1,524	1,473	1,521	1,398
Chittenden	18,581	19,957	18,558	18,181	16,940	16,660	13,617	14,943	14,605	14,232	14,879	15,095
Essex	293	507	418	418	751	364	521	504	621	758	389	335
Franklin/Grand Isle	3,755	3,994	5,704	3,790	4,244	3,024	3,962	3,251	2,622	3,142	3,256	4,032
Lamoille	2,844	2,745	1,838	2,334	1,841	1,210	1,328	1,445	1,676	1,816	1,186	1,233
Orange	2,760	2,872	3,441	3,015	2,171	2,213	2,629	2,030	2,112	1,940	2,181	2,293
Orleans	2,365	2,857	2,601	2,512	2,643	2,285	3,036	2,286	1,792	2,063	1,694	2,038
Rutland	6,285	5,626	5,858	5,038	5,233	6,856	5,376	4,444	4,757	4,621	5,057	5,903
Washington	19,120	15,036	14,408	12,771	12,749	11,193	10,034	9,271	6,510	5,840	5,492	6,032
Windham	6,744	6,173	8,050	8,282	6,883	7,673	8,491	7,872	7,475	6,328	5,908	5,664
Windsor	9,582	8,711	7,567	7,892	7,669	6,864	6,392	5,736	5,076	4,821	6,136	5,357
Unknown	1,193	354	85	502	641	724	385	1,156	1,057	2,173	753	855

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Table 1-4
Average Daily Census
 for Behavioral Health Care
 Vermont Residents: 1990 - 2001

Average Daily Census by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	226	213	211	203	194	186	177	169	149	149	147	154
VT General Hospitals	63	60	61	58	57	53	55	54	50	55	52	54
Vermont State Hospital	113	102	96	87	76	74	64	65	55	54	49	52
Brattleboro Retreat	20	17	15	20	21	27	34	32	29	24	31	30
VA Hospital - WRJ	9	9	15	10	10	10	8	5	4	4	4	5
New Hampshire Hospitals	19	23	19	24	23	17	14	8	8	8	7	9
Other Out-of-State Hospitals	1	2	5	4	6	5	3	4	4	3	3	4

Average Daily Census by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	226	213	211	203	194	186	177	169	149	149	147	154
Addison	5	5	6	8	6	7	8	8	6	8	6	7
Bennington	11	11	10	11	13	12	11	10	7	7	8	9
Caledonia	8	9	7	6	6	5	6	5	4	4	4	4
Chittenden	51	55	51	50	46	46	37	41	40	39	41	41
Essex	1	1	1	1	2	1	1	1	2	2	1	1
Franklin/Grand Isle	10	11	16	10	12	8	11	9	7	9	9	11
Lamoille	8	8	5	6	5	3	4	4	5	5	3	3
Orange	8	8	9	8	6	6	7	6	6	5	6	6
Orleans	6	8	7	7	7	6	8	6	5	6	5	6
Rutland	17	15	16	14	14	19	15	12	13	13	14	16
Washington	52	41	39	35	35	31	27	25	18	16	15	17
Windham	18	17	22	23	19	21	23	22	20	17	16	16
Windsor	26	24	21	22	21	19	17	16	14	13	17	15
Unknown	3	1	< 1	1	2	2	1	3	3	6	2	2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Table 1-5
Average Daily Census per 100,000 Population
for Behavioral Health Care
Vermont Residents: 1990 - 2001

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	40	38	37	35	33	31	30	28	25	25	24	25
VT General Hospitals	11	11	11	10	10	9	9	9	8	9	9	9
Vermont State Hospital	20	18	17	15	13	13	11	11	9	9	8	9
Brattleboro Retreat	3	3	3	3	4	5	6	5	5	4	5	5
VA Hospital - WRJ	2	2	3	2	2	2	1	1	1	1	1	1
New Hampshire Hospitals	3	4	3	4	4	3	2	1	1	1	1	1
Other Out-of-State Hospitals	< 1	< 1	1	1	1	1	< 1	1	1	1	< 1	1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	40	38	37	35	33	31	30	28	25	25	24	25
Addison	17	14	19	22	18	19	24	23	16	21	18	19
Bennington	30	32	28	31	34	34	30	28	20	18	21	25
Caledonia	29	31	26	22	21	18	19	18	14	14	14	13
Chittenden	39	41	38	36	33	32	26	29	28	27	28	28
Essex	13	22	18	18	32	15	22	21	26	32	17	14
Franklin/Grand Isle	23	24	33	22	24	17	22	18	14	17	17	21
Lamoille	39	37	25	31	24	15	16	18	20	22	14	14
Orange	29	30	35	31	22	22	26	20	21	19	21	22
Orleans	27	32	29	28	29	25	32	24	19	22	18	21
Rutland	28	25	26	22	23	30	23	19	21	20	22	25
Washington	95	75	71	62	62	54	48	44	31	28	26	28
Windham	44	40	52	53	44	49	53	49	47	39	37	35
Windsor	49	44	38	39	38	33	31	28	24	23	29	25
Unknown	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1	< 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 1-6
Average Length of Stay
for Behavioral Health Care
Vermont Residents: 1990 - 2001

Average Length of Stay by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	23	22	22	19	17	16	14	14	12	12	11	12
VT General Hospitals	11	11	11	10	9	9	8	8	7	8	7	7
Vermont State Hospital	85	74	88	83	69	71	66	63	65	68	69	63
Brattleboro Retreat	32	26	22	21	20	19	19	17	14	12	13	12
VA Hospital - WRJ	16	14	23	14	15	14	13	8	6	6	6	8
New Hampshire Hospitals	14	15	14	13	12	8	7	6	6	6	6	7
Out-of-State Hospitals	14	13	19	10	21	14	9	12	12	11	10	11

Average Length of Stay by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	23	22	22	19	17	16	14	14	12	12	11	12
Addison	18	15	19	19	15	16	15	15	12	11	10	11
Bennington	18	17	16	14	15	13	12	16	12	10	11	12
Caledonia	20	20	17	12	14	11	11	12	10	10	10	9
Chittenden	23	24	26	24	20	22	18	18	18	19	17	18
Essex	9	15	12	12	23	10	12	14	15	20	14	10
Franklin/Grand Isle	24	24	30	20	23	20	18	17	15	19	15	17
Lamoille	27	23	19	23	18	12	12	12	14	13	8	8
Orange	17	16	19	14	13	12	13	12	14	11	12	12
Orleans	14	18	18	14	13	14	19	14	13	11	11	13
Rutland	17	14	15	14	13	15	12	9	8	7	7	8
Washington	39	34	29	28	24	23	17	15	14	12	10	11
Windham	25	22	25	21	16	15	13	12	11	10	11	10
Windsor	21	20	17	15	13	12	10	10	9	8	10	9
Unknown	70	35	28	39	38	29	18	48	38	31	36	21

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Table 1-7
Unduplicated Number of People Hospitalized
for Behavioral Health Care
Vermont Residents: 1990 - 2001

Unduplicated Number of People Served by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20	3,151 ± 22	3,193 ± 22
VT General Hospitals	1,672 ± 12	1,596 ± 11	1,609 ± 12	1,589 ± 11	1,652 ± 12	1,568 ± 12	1,781 ± 13	1,775 ± 13	1,717 ± 12	1,816 ± 13	1,981 ± 15	1,931 ± 14
Vermont State Hospital	413	428	349	323	344	330	289	314	270	266	229	267
Brattleboro Retreat	204	212	215	267	296	421	486	536	485	560	692	743
VA Hospital - WRJ	171 ± 2	174 ± 2	164 ± 2	187 ± 2	192 ± 3	200 ± 3	182 ± 3	146 ± 2	141 ± 2	147 ± 2	169 ± 2	157 ± 2
New Hampshire Hospitals	374 ± 3	410 ± 3	386 ± 3	495 ± 4	558 ± 5	546 ± 5	480 ± 4	374 ± 4	395 ± 3	379 ± 3	346 ± 3	356 ± 3
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Unduplicated Number of People Served by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20	3,151 ± 22	3,193 ± 22
Addison	88 ± 1	88 ± 1	89 ± 1	114 ± 1	104 ± 1	112 ± 1	120 ± 1	130 ± 2	116 ± 1	135 ± 1	131 ± 1	145 ± 2
Bennington	171 ± 2	181 ± 2	165 ± 2	177 ± 2	205 ± 2	221 ± 2	232 ± 2	161 ± 1	154 ± 2	150 ± 2	172 ± 2	181 ± 2
Caledonia	128 ± 1	128 ± 1	124 ± 1	138 ± 2	125 ± 1	138 ± 1	123 ± 1	114 ± 1	112 ± 2	105 ± 1	117 ± 1	116 ± 1
Chittenden	598 ± 5	625 ± 5	544 ± 4	545 ± 4	591 ± 5	533 ± 4	546 ± 4	583 ± 5	552 ± 4	545 ± 4	622 ± 5	598 ± 5
Essex	23 ± 0.5	29 ± 0.6	29 ± 0.6	30 ± 0.6	25 ± 0.5	27 ± 0.6	34 ± 0.7	29 ± 1	32 ± 1	30 ± 0	22 ± 0.5	30 ± 1
Franklin/Grand Isle	125 ± 1	134 ± 1	148 ± 2	140 ± 2	149 ± 2	123 ± 1	161 ± 2	148 ± 2	132 ± 2	130 ± 1	161 ± 2	180 ± 2
Lamoille	86 ± 1	93 ± 1	76 ± 1	79 ± 1	72 ± 1	75 ± 1	69 ± 1	65 ± 1	81 ± 1	88 ± 1	112 ± 1	109 ± 1
Orange	121 ± 1	128 ± 1	119 ± 1	117 ± 1	119 ± 1	130 ± 1	136 ± 2	120 ± 1	115 ± 1	121 ± 1	122 ± 1	136 ± 2
Orleans	126 ± 1	116 ± 1	111 ± 1	132 ± 1	126 ± 1	118 ± 1	118 ± 1	120 ± 1	104 ± 1	143 ± 1	111 ± 1	115 ± 1
Rutland	301 ± 3	291 ± 3	299 ± 3	270 ± 2	304 ± 3	316 ± 3	302 ± 3	324 ± 3	411 ± 3	442 ± 3	529 ± 4	512 ± 4
Washington	359 ± 3	303 ± 3	334 ± 3	293 ± 3	318 ± 3	303 ± 3	344 ± 3	377 ± 4	329 ± 3	316 ± 3	329 ± 3	344 ± 3
Windham	207 ± 2	211 ± 2	222 ± 2	250 ± 2	300 ± 3	318 ± 3	393 ± 3	412 ± 3	421 ± 3	382 ± 3	375 ± 3	382 ± 3
Windsor	323 ± 3	314 ± 3	313 ± 3	377 ± 3	374 ± 3	388 ± 3	390 ± 3	345 ± 3	365 ± 3	365 ± 3	404 ± 3	403 ± 3
Unknown	16 ± 0.4	9 ± 0.3	3 ± 0.2	12 ± 0.3	17 ± 0.4	21 ± 0.5	18 ± 0.4	21 ± 0.4	26 ± 0.5	69 ± 3	21 ± 0.5	34 ± 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table 1-8
Unduplicated Number of People Hospitalized Per 100,000 Population
for Behavioral Health Care
Vermont Residents: 1990 - 2001

Unduplicated Number of People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	461 ± 3	454 ± 3	439 ± 3	452 ± 3	474 ± 3	464 ± 3	489 ± 3	481 ± 3.3	476 ± 3	482 ± 3	518 ± 4	521 ± 4
VT General Hospitals	297 ± 2	282 ± 2	282 ± 2	274 ± 2	282 ± 2	265 ± 2	298 ± 2	297 ± 2.2	286 ± 2	301 ± 2.2	325 ± 2.5	315 ± 2.3
Vermont State Hospital	73	76	61	56	59	56	48	53	45	44	38	44
Brattleboro Retreat	36	37	38	46	51	71	81	90	81	93	114	121
VA Hospital - WRJ	30 ± 0.4	31 ± 0.4	29 ± 0.4	32 ± 0.4	33 ± 0.5	34 ± 0.5	30 ± 0.5	24 ± 0.3	23 ± 0.3	24 ± 0.3	28 ± 0.3	26 ± 0.3
New Hampshire Hospitals	66 ± 0.6	72 ± 0.6	68 ± 0.6	85 ± 0.7	95 ± 0.8	92 ± 0.8	80 ± 0.7	63 ± 0.7	66 ± 0.5	63 ± 0.5	57 ± 0.5	58 ± 0.5
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Unduplicated Number of People per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	461 ± 3	454 ± 3	439 ± 3	452 ± 3	474 ± 3	464 ± 3	489 ± 3	481 ± 3	476 ± 3	482 ± 3	518 ± 4	521 ± 4
Addison	268 ± 3	266 ± 4	267 ± 3	336 ± 4	303 ± 4	323 ± 4	343 ± 4	369 ± 6	328 ± 3	377 ± 3	363 ± 3	400 ± 6
Bennington	476 ± 5	504 ± 5	458 ± 5	487 ± 5	561 ± 5	601 ± 6	629 ± 6	438 ± 3	419 ± 5	406 ± 5	464 ± 5	488 ± 5
Caledonia	458 ± 5	455 ± 5	438 ± 5	482 ± 5	432 ± 5	473 ± 5	422 ± 5	389 ± 3	381 ± 7	357 ± 3	395 ± 3	390 ± 3
Chittenden	454 ± 4	470 ± 4	404 ± 3	398 ± 3	426 ± 3	379 ± 3	384 ± 3	408 ± 4	384 ± 3	375 ± 3	425 ± 3	405 ± 3
Essex	360 ± 8	455 ± 9	454 ± 9.2	467 ± 9	387 ± 8	417 ± 9	524 ± 10	448 ± 15	496 ± 16	467 ± 0	342 ± 8	466 ± 15
Franklin/Grand Isle	275 ± 3	290 ± 3	316 ± 4	293 ± 3	307 ± 3	248 ± 3	321 ± 3	293 ± 4	259 ± 4	251 ± 2	307 ± 4	340 ± 4
Lamoille	437 ± 6	464 ± 6	373 ± 5	379 ± 5	339 ± 5	347 ± 5	313 ± 4	292 ± 4	359 ± 4	386 ± 4	484 ± 4	466 ± 4
Orange	461 ± 5	485 ± 6	450 ± 5	437 ± 5	440 ± 4.9	472 ± 5	489 ± 5	433 ± 4	413 ± 4	434 ± 4	430 ± 4	478 ± 7
Orleans	522 ± 6	480 ± 6	456 ± 6	530 ± 6	500 ± 6	466 ± 5	458 ± 5	466 ± 4	402 ± 4	547 ± 4	424 ± 4	437 ± 4
Rutland	484 ± 4	468 ± 4.1	480 ± 4	429 ± 4	481 ± 4	499 ± 4	475 ± 4	512 ± 5	651 ± 5	700 ± 5	834 ± 6	806 ± 6
Washington	653 ± 6	549 ± 5	603 ± 5	522 ± 5	562 ± 5	531 ± 5	599 ± 5	657 ± 7	573 ± 5	548 ± 5	567 ± 5	591 ± 5
Windham	498 ± 5	505 ± 4.9	528 ± 5.1	588 ± 5	698 ± 6	734 ± 7	900 ± 8	945 ± 7	963 ± 7	869 ± 7	847 ± 7	859 ± 7
Windsor	598 ± 6	578 ± 5	573 ± 5	681 ± 6	670 ± 5.8	689 ± 6	688 ± 6	609 ± 5	643 ± 5	639 ± 5	704 ± 5	699 ± 5
Unknown	3 ± 0.1	2 ± 0.1	1 ± <.1	2 ± 0.1	3 ± 0.1	4 ± 4	3 ± 0.1	4 ± 0.1	4 ± 0.1	11 ± 0.5	3 ± 0.1	6 ± 0.2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 2-1
Episodes of Hospitalization
for Mental Illness
Vermont Residents: 1990 - 2001

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,815	2,886	2,970	3,350	3,648	3,769	4,185	3,975	3,887	4,190	4,276	4,435
VT General Hospitals	1,640	1,571	1,712	1,831	2,020	1,975	2,343	2,404	2,294	2,501	2,638	2,574
Vermont State Hospital	428	471	393	366	374	349	347	372	305	293	261	300
Brattleboro Retreat	150	169	190	286	318	442	556	474	535	572	557	741
VA Hospital - WRJ	180	187	191	187	205	211	201	194	180	229	243	222
New Hampshire Hospitals	386	450	414	569	655	691	648	448	476	496	486	472
Other Out-of-State Hospitals	31	38	70	111	76	101	90	83	97	99	91	126

Episodes of Hospitalization by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,815	2,885	2,970	3,350	3,648	3,769	4,185	3,975	3,887	4,190	4,276	4,435
Addison	73	92	106	138	139	146	184	173	153	244	215	225
Bennington	175	205	197	239	269	291	307	193	199	213	237	265
Caledonia	123	128	122	158	145	166	163	153	134	141	146	153
Chittenden	655	645	601	684	752	699	700	759	751	713	765	755
Essex	25	32	29	31	33	33	41	34	34	34	24	33
Franklin/Grand Isle	116	138	165	158	167	138	194	178	154	162	201	222
Lamoille	85	95	83	91	93	92	93	110	102	139	131	144
Orange	132	148	154	178	142	170	188	151	142	167	181	189
Orleans	129	140	127	162	186	150	148	147	132	187	146	145
Rutland	286	315	325	316	337	393	397	370	498	568	648	682
Washington	429	379	431	409	486	457	583	599	449	455	499	505
Windham	210	197	263	336	371	476	587	580	595	547	472	527
Windsor	362	362	364	438	514	536	579	508	518	551	592	551
Unknown	15	9	3	12	14	22	21	20	26	69	19	39

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 2-2
Episodes of Hospitalization Per 100,000 Population
for Mental Illness
Vermont Residents: 1990 - 2001

Episodes per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	500	509	520	578	623	637	701	665	648	693	702	724
VT General Hospitals	291	277	300	316	345	334	392	402	382	414	433	420
Vermont State Hospital	76	83	69	63	64	59	58	62	51	48	43	49
Brattleboro Retreat	27	30	33	49	54	75	93	79	89	95	91	121
VA Hospital - WRJ	32	33	33	32	35	36	34	32	30	38	40	36
New Hampshire Hospitals	69	79	72	98	112	117	109	75	79	82	80	77
Other Out-of-State Hospitals	6	7	12	19	13	17	15	14	16	16	15	21

Episodes per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	500	509	520	578	623	637	701	665	648	693	702	724
Addison	222	277	316	406	404	419	523	491	432	684	598	622
Bennington	488	571	547	658	736	791	831	524	541	578	641	715
Caledonia	442	457	433	554	503	571	557	523	456	478	492	513
Chittenden	497	484	447	500	542	497	492	532	522	491	522	511
Essex	390	500	453	481	510	508	630	526	527	528	372	510
Franklin/Grand Isle	256	300	353	332	344	280	387	353	302	314	384	420
Lamoille	431	473	406	435	437	424	421	493	452	607	564	613
Orange	505	562	581	662	522	619	678	545	510	596	641	666
Orleans	536	577	519	652	740	590	576	571	510	718	556	548
Rutland	460	507	522	503	534	620	624	585	788	899	1,022	1,074
Washington	781	687	777	729	859	801	1,015	1,045	781	789	860	867
Windham	505	471	626	789	864	1,098	1,345	1,330	1,361	1,245	1,067	1,187
Windsor	670	666	666	792	921	952	1,021	897	912	966	1,031	955
Unknown	3	2	1	2	2	4	4	3	4	11	3	6

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 2-3
Patient Days
for Mental Illness
Vermont Residents: 1990 - 2001

Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	73,926	70,917	71,465	69,162	66,701	64,711	62,123	57,342	50,795	52,921	50,534	54,262
VT General Hospitals	19,532	19,121	20,205	19,925	19,915	18,898	19,402	19,037	17,453	19,816	18,869	19,377
Vermont State Hospital	39,554	36,151	34,686	30,988	26,468	25,967	23,324	23,743	19,923	19,815	17,963	19,039
Brattleboro Retreat	5,343	4,808	4,037	6,313	6,674	8,798	10,770	8,991	8,041	7,650	8,548	9,493
VA Hospital - WRJ	3,062	3,032	4,867	2,922	3,520	3,469	2,938	1,698	1,309	1,421	1,480	1,716
New Hampshire Hospitals	5,962	7,323	6,121	7,819	8,203	5,909	4,843	2,882	2,763	3,075	2,707	3,252
Other Out-of-State Hospitals	473	482	1,549	1,195	1,921	1,670	846	991	1,306	1,144	967	1,385

Patient Days by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	73,926	70,917	71,465	69,162	66,701	64,711	62,123	57,342	50,795	52,921	50,534	54,262
Addison	1,445	1,452	2,176	2,628	2,196	2,316	2,880	2,754	1,960	2,699	2,272	2,453
Bennington	3,484	3,541	3,113	3,695	4,408	4,256	3,929	3,360	2,500	2,275	2,626	3,253
Caledonia	2,680	2,849	2,445	2,172	2,076	1,867	1,818	1,840	1,405	1,438	1,464	1,320
Chittenden	16,308	17,840	17,180	17,018	15,815	15,854	13,133	14,306	13,741	13,990	13,854	14,641
Essex	253	495	351	342	751	329	513	375	588	750	383	316
Franklin/Grand Isle	3,359	3,620	5,367	3,511	3,815	2,934	3,633	3,161	2,498	3,117	3,127	3,876
Lamoille	2,646	2,390	1,738	2,172	1,740	1,180	1,255	1,388	1,572	1,800	1,070	1,176
Orange	2,475	2,575	3,244	2,819	1,957	1,996	2,608	1,892	2,048	1,862	2,130	2,271
Orleans	1,950	2,702	2,489	2,312	2,584	2,116	2,952	2,123	1,691	2,047	1,627	1,982
Rutland	5,565	5,079	5,411	4,739	4,758	6,493	4,886	3,728	4,214	4,364	4,655	5,672
Washington	18,217	14,585	13,853	12,395	12,442	10,894	9,923	9,079	6,106	5,764	5,289	5,829
Windham	5,937	5,458	7,144	7,747	6,431	7,300	8,073	6,724	6,643	5,945	5,319	5,381
Windsor	8,424	7,995	6,869	7,162	7,177	6,500	6,135	5,495	4,778	4,710	5,983	5,250
Unknown	1,183	336	85	450	551	676	385	1,117	1,051	2,160	735	842

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 2-4
Average Daily Census
for Mental Illness
Vermont Residents: 1990 - 2001

Average Daily Census by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	203	194	195	189	183	177	170	157	139	145	138	149
VT General Hospitals	54	52	55	55	55	52	53	52	48	54	52	53
Vermont State Hospital	108	99	95	85	73	71	64	65	55	54	49	52
Brattleboro Retreat	15	13	11	17	18	24	29	25	22	21	23	26
VA Hospital - WRJ	8	8	13	8	10	10	8	5	4	4	4	5
New Hampshire Hospitals	16	20	17	21	22	16	13	8	8	8	7	9
Other Out-of-State Hospitals	1	1	4	3	5	5	2	3	4	3	3	4

Average Daily Census by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	203	194	195	189	183	177	170	157	139	145	138	149
Addison	4	4	6	7	6	6	8	8	5	7	6	7
Bennington	10	10	9	10	12	12	11	9	7	6	7	9
Caledonia	7	8	7	6	6	5	5	5	4	4	4	4
Chittenden	45	49	47	47	43	43	36	39	38	38	38	40
Essex	1	1	1	1	2	1	1	1	2	2	1	1
Franklin/Grand Isle	9	10	15	10	10	8	10	9	7	9	9	11
Lamoille	7	7	5	6	5	3	3	4	4	5	3	3
Orange	7	7	9	8	5	5	7	5	6	5	6	6
Orleans	5	7	7	6	7	6	8	6	5	6	4	5
Rutland	15	14	15	13	13	18	13	10	12	12	13	16
Washington	50	40	38	34	34	30	27	25	17	16	14	16
Windham	16	15	20	21	18	20	22	18	18	16	15	15
Windsor	23	22	19	20	20	18	17	15	13	13	16	14
Unknown	3	1	< 1	1	2	2	1	3	3	6	2	2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 2-5
Average Daily Census per 100,000 Population
for Mental Illness
Vermont Residents: 1990 - 2001

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	36	34	34	33	31	30	28	26	23	24	23	24
VT General Hospitals	10	9	10	9	9	9	9	9	8	9	8	9
Vermont State Hospital	19	17	17	15	12	12	11	11	9	9	8	9
Brattleboro Retreat	3	2	2	3	3	4	5	4	4	3	4	4
VA Hospital - WRJ	1	1	2	1	2	2	1	1	1	1	1	1
New Hampshire Hospitals	3	4	3	4	4	3	2	1	1	1	1	1
Other Out-of-State Hospitals	< 1	< 1	1	1	1	1	< 1	< 1	1	1	< 1	1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	36	34	34	33	31	30	28	26	23	24	23	24
Addison	12	12	18	21	17	18	22	21	15	21	17	19
Bennington	27	27	24	28	33	32	29	25	19	17	19	24
Caledonia	26	28	24	21	20	18	17	17	13	13	14	12
Chittenden	34	37	35	34	31	31	25	27	26	26	26	27
Essex	11	21	15	15	32	14	22	16	25	32	16	13
Franklin/Grand Isle	20	22	31	20	22	16	20	17	13	17	16	20
Lamoille	37	33	23	28	22	15	16	17	19	22	13	14
Orange	26	27	33	29	20	20	26	19	20	18	21	22
Orleans	22	31	28	26	28	23	31	23	18	22	17	21
Rutland	25	22	24	21	21	28	21	16	18	19	20	24
Washington	91	72	68	61	60	52	47	43	29	27	25	27
Windham	39	36	46	50	41	46	51	42	42	37	33	33
Windsor	43	40	34	35	35	32	30	27	23	23	29	25
Unknown	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1	< 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 2-6
Average Length of Stay
for Mental Illness
Vermont Residents: 1990 - 2001

Average Length of Stay by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	26	25	24	21	18	17	15	14	13	13	12	12
VT General Hospitals	12	12	12	11	10	10	8	8	8	8	7	8
Vermont State Hospital	92	77	88	85	71	74	67	64	65	68	69	63
Brattleboro Retreat	36	28	21	22	21	20	19	19	15	13	15	13
VA Hospital - WRJ	17	16	25	16	17	16	15	9	7	6	6	8
New Hampshire Hospitals	15	16	15	14	13	9	7	6	6	6	6	7
Other Out-of-State Hospitals	15	13	22	11	25	17	9	12	13	12	11	11

Average Length of Stay by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	26	25	24	21	18	17	15	14	13	13	12	12
Addison	20	16	21	19	16	16	16	16	13	11	11	11
Bennington	20	17	16	15	16	15	13	17	13	11	11	12
Caledonia	22	22	20	14	14	11	11	12	10	10	10	9
Chittenden	25	28	29	25	21	23	19	19	18	20	18	19
Essex	10	15	12	11	23	10	13	11	17	22	16	10
Franklin/Grand Isle	29	26	33	22	23	21	19	18	16	19	16	17
Lamoille	31	25	21	24	19	13	13	13	15	13	8	8
Orange	19	17	21	16	14	12	14	13	14	11	12	12
Orleans	15	19	20	14	14	14	20	14	13	11	11	14
Rutland	19	16	17	15	14	17	12	10	8	8	7	8
Washington	42	38	32	30	26	24	17	15	14	13	11	12
Windham	28	28	27	23	17	15	14	12	11	11	11	10
Windsor	23	22	19	16	14	12	11	11	9	9	10	10
Unknown	79	37	28	38	39	31	18	56	40	31	39	22

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 2-7
Unduplicated Number of People Hospitalized
for Mental Illness
Vermont Residents: 1990 - 2001

Unduplicated Number of People Served by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,050 ± 14	2,067 ± 15	2,136 ± 15	2,286 ± 16	2,502 ± 17	2,489 ± 17	2,688 ± 18	2,569 ± 18	2,576 ± 18	2,772 ± 19	2,922 ± 20	3,041 ± 21
VT General Hospitals	1,320 ± 9	1,259 ± 9	1,362 ± 9	1,401 ± 10	1,484 ± 11	1,434 ± 11	1,643 ± 12	1,642 ± 12	1,613 ± 12	1,763 ± 13	1,934 ± 14	1,890 ± 14
Vermont State Hospital	360	398	341	307	315	298	282	306	267	266	229	267
Brattleboro Retreat	136	148	163	222	248	358	432	389	374	468	471	618
VA Hospital - WRJ	139 ± 2	143 ± 2	138 ± 2	147 ± 2	159 ± 2	172 ± 3	157 ± 3	127 ± 2	112 ± 2	138 ± 2	161 ± 2	154 ± 2
New Hampshire Hospitals	289 ± 3	325 ± 3	318 ± 3	425 ± 3	518 ± 4	519 ± 4	455 ± 4	345 ± 3	377 ± 4	375 ± 3	341 ± 3	355 ± 3
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Unduplicated Number of People Served by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,050 ± 14	2,067 ± 15	2,136 ± 15	2,286 ± 16	2,502 ± 17	2,489 ± 17	2,688 ± 18	2,569 ± 18	2,576 ± 18	2,772 ± 19	2,922 ± 20	3,041 ± 21
Addison	58 ± 1	70 ± 1	75 ± 1	105 ± 1	90 ± 1	109 ± 1	110 ± 1	111 ± 1	108 ± 1	128 ± 1	122 ± 1	139 ± 2
Bennington	133 ± 1	145 ± 2	146 ± 2	148 ± 2	189 ± 2	190 ± 2	216 ± 2	132 ± 2	131 ± 2	133 ± 1	161 ± 2	173 ± 2
Caledonia	102 ± 2	106 ± 1	98 ± 1	114 ± 1	113 ± 1	127 ± 2	106 ± 1	103 ± 1	100 ± 1	102 ± 1	110 ± 1	109 ± 1
Chittenden	475 ± 4	488 ± 4	460 ± 4	495 ± 4	526 ± 5	490 ± 4	507 ± 4	529 ± 5	521 ± 5	517 ± 4	555 ± 5	557 ± 4
Essex	19 ± 0.4	28 ± 0.5	25 ± 0.5	27 ± 0.5	25 ± 0.5	25 ± 0.5	31 ± 0.5	26 ± 0.5	25 ± 0.5	28 ± 1.0	19 ± 0.4	29 ± 1.0
Franklin/Grand Isle	93 ± 1	111 ± 1	129 ± 2	118 ± 2	137 ± 2	110 ± 1	145 ± 2	137 ± 2	118 ± 2	127 ± 1	154 ± 2	169 ± 2
Lamoille	68 ± 1	78 ± 1	66 ± 1	74 ± 1	66 ± 1	69 ± 1	60 ± 1	62 ± 1	70 ± 1	87 ± 1	99 ± 1	103 ± 1
Orange	97 ± 1	105 ± 1	101 ± 1	103 ± 1	105 ± 1	114 ± 1	132 ± 2	109 ± 1	108 ± 1	120 ± 1	117 ± 1	132 ± 1
Orleans	94 ± 1	95 ± 1	96 ± 1	115 ± 1	122 ± 2	108 ± 1	112 ± 1	111 ± 1	95 ± 1	140 ± 1	107 ± 1	110 ± 1
Rutland	238 ± 2	232 ± 2	247 ± 2	231 ± 2	256 ± 2	277 ± 3	267 ± 2	267 ± 2	359 ± 4	407 ± 3	487 ± 4	485 ± 4
Washington	307 ± 3	254 ± 2	298 ± 3	265 ± 3	290 ± 3	282 ± 3	325 ± 3	357 ± 3	305 ± 3	304 ± 3	313 ± 3	332 ± 3
Windham	159 ± 2	147 ± 2	190 ± 2	210 ± 2	272 ± 3	293 ± 3	362 ± 3	361 ± 3	373 ± 4	361 ± 3	340 ± 3	358 ± 3
Windsor	256 ± 2	259 ± 2	257 ± 2	316 ± 3	333 ± 3	351 ± 3	361 ± 4	316 ± 3	326 ± 3	355 ± 3	392 ± 3	394 ± 3
Unknown	15 ± 0.4	8 ± 0.3	3 ± 0.2	11 ± 0.3	14 ± 0.4	19 ± 0.5	18 ± 0.4	19 ± 0.4	25 ± 0.5	67 ± 1	19 ± 0.5	33 ± 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table 2-8
Unduplicated Number of People Hospitalized per 100,000 Population
for Mental Illness
Vermont Residents: 1990 - 2001

Unduplicated Number of People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	364 ± 2	365 ± 3	374 ± 3	395 ± 3	427 ± 3	421 ± 3	450 ± 3	430 ± 3	429 ± 3	459 ± 3.1	480 ± 3.3	497 ± 3.4
VT General Hospitals	235 ± 2	222 ± 2	238 ± 2	242 ± 2	253 ± 2	242 ± 2	275 ± 2	275 ± 2	269 ± 2	292 ± 2.2	318 ± 2.3	309 ± 2.3
Vermont State Hospital	64	70	60	53	54	50	47	51	44	44	38	44
Brattleboro Retreat	24	26	29	38	42	60	72	65	62	77	77	101
VA Hospital - WRJ	25 ± 0.4	25 ± 0.4	24 ± 0.4	25 ± 0.3	27 ± 0.3	29 ± 0.5	26 ± 0.5	21 ± 0.3	19 ± 0.3	23 ± 0.3	27 ± 0.3	25 ± 0.3
New Hampshire Hospitals	51 ± 0.5	57 ± 0.5	56 ± 0.5	73 ± 0.5	88 ± 0.7	88 ± 0.7	76 ± 0.7	58 ± 0.5	63 ± 0.7	62 ± 0.5	56 ± 0.5	58 ± 0.5
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Unduplicated Number of People per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	364 ± 2	365 ± 3	374 ± 3	395 ± 3	427 ± 2.9	421 ± 3	450 ± 3	430 ± 3	429 ± 3	459 ± 3	480 ± 3	497 ± 3
Addison	176 ± 3	211 ± 3	224 ± 3	309 ± 3	261 ± 3	313 ± 3	313 ± 3	315 ± 3	305 ± 3	357 ± 3	338 ± 3	383 ± 6
Bennington	371 ± 3	404 ± 6	406 ± 6	407 ± 6	517 ± 5	517 ± 5	585 ± 5	359 ± 5	356 ± 5	360 ± 3	434 ± 5	466 ± 5
Caledonia	366 ± 7	379 ± 4	348 ± 4	400 ± 4	392 ± 3	437 ± 7	362 ± 3	352 ± 3	341 ± 3	347 ± 3	372 ± 3	367 ± 3
Chittenden	361 ± 3	366 ± 3	342 ± 3	362 ± 3	379 ± 4	348 ± 3	356 ± 3	370 ± 4	362 ± 3	356 ± 3	379 ± 3	377 ± 3
Essex	297 ± 6	438 ± 8	391 ± 8	419 ± 8	386 ± 8	385 ± 8	476 ± 8	402 ± 8	388 ± 8	436 ± 16	295 ± 6	450 ± 15
Franklin/Grand Isle	205 ± 2	241 ± 2	276 ± 4	248 ± 4	283 ± 4	223 ± 2	289 ± 4	271 ± 4	231 ± 4	245 ± 2	294 ± 4	319 ± 4
Lamoille	345 ± 5	388 ± 5	323 ± 5	354 ± 5	310 ± 5	318 ± 5	272 ± 5	278 ± 4	310 ± 4	381 ± 4	428 ± 4	440 ± 4
Orange	371 ± 4	399 ± 4	381 ± 4	383 ± 4	386 ± 4	415 ± 4	476 ± 7	393 ± 4	388 ± 4	430 ± 4	416 ± 4	464 ± 4
Orleans	391 ± 4	392 ± 4	392 ± 4.1	463 ± 4	485 ± 8	425 ± 4	436 ± 4	431 ± 4	367 ± 4	536 ± 4	409 ± 4	418 ± 4
Rutland	383 ± 3	373 ± 3	397 ± 3	368 ± 3	406 ± 3	437 ± 5	420 ± 3	422 ± 3	568 ± 6	644 ± 5	768 ± 6	764 ± 6
Washington	559 ± 5	460 ± 4	537 ± 5	472 ± 5	513 ± 5	494 ± 5	566 ± 5	623 ± 5	531 ± 5	527 ± 5	540 ± 5	570 ± 5
Windham	382 ± 5	352 ± 5	452 ± 5	493 ± 5	633 ± 7	676 ± 7	829 ± 7	828 ± 7	853 ± 9	820 ± 7	769 ± 7	807 ± 7
Windsor	474 ± 4	477 ± 4	470 ± 4	571 ± 5	597 ± 5	623 ± 5	637 ± 7	558 ± 5	574 ± 5	623 ± 5	682 ± 5	683 ± 5
Unknown	3 ± 0.1	1 ± <.1	1 ± <.1	2 ± 0.1	2 ± 0.1	3 ± 0.1	3 ± 0.1	3 ± 0.1	4 ± 0.1	11 ± 0.2	3 ± 0.1	5 ± 0.2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table 3-1
Episodes of Hospitalization
for Substance Abuse
Vermont Residents: 1990 - 2001

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	1,312	1,246	1,282	1,385	1,496	1,658	1,852	1,760	1,713	1,991	2,147	2,361
VT General Hospitals	727	680	727	679	808	822	889	944	872	1136	1233	1241
Vermont State Hospital	188	206	164	150	149	128	147	198	160	129	145	152
Brattleboro Retreat	129	125	137	168	176	300	359	309	331	364	454	606
VA Hospital - WRJ	97	80	81	106	120	97	76	62	62	94	84	88
New Hampshire Hospitals	159	146	112	192	183	225	319	186	236	208	191	221
Other Out-of-State Hospitals	12	9	61	90	60	86	62	61	52	60	40	53

Episodes of Hospitalization by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	1,312	1,245	1,282	1,385	1,496	1,658	1,852	1,760	1,713	1,991	2,147	2,361
Addison	46	26	52	47	51	56	62	85	64	90	84	84
Bennington	54	76	63	89	95	152	139	79	80	107	125	147
Caledonia	69	57	82	76	55	69	78	63	63	55	61	73
Chittenden	314	335	284	285	333	281	306	343	290	289	410	384
Essex	12	11	10	8	6	9	17	13	14	18	11	18
Franklin/Grand Isle	53	60	70	74	68	50	92	68	56	52	72	105
Lamoille	48	44	23	31	31	37	36	42	38	54	67	64
Orange	51	54	51	77	50	60	71	57	51	76	79	95
Orleans	53	52	48	55	72	69	61	54	55	74	71	75
Rutland	147	146	158	141	180	206	159	171	196	329	397	441
Washington	177	136	186	146	146	155	174	215	162	189	209	230
Windham	111	112	110	146	167	249	327	320	341	335	265	325
Windsor	172	131	144	205	235	255	321	241	287	281	288	295
Unknown	5	5	1	5	7	10	9	9	16	42	8	25

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 3-2
Episodes of Hospitalization Per 100,000 Population
for Substance Abuse
Vermont Residents: 1990 - 2001

Episodes per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	233	220	225	241	258	284	310	294	285	330	353	386
VT General Hospitals	129	120	128	118	139	141	149	158	145	188	203	203
Vermont State Hospital	33	36	29	26	26	22	25	33	27	21	24	25
Brattleboro Retreat	23	22	24	29	30	51	60	52	55	60	75	99
VA Hospital - WRJ	17	14	14	18	21	17	13	10	10	16	14	14
New Hampshire Hospitals	28	26	20	33	32	38	53	31	39	34	31	36
Other Out-of-State Hospitals	2	2	11	16	10	15	10	10	9	10	7	9

Episodes per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	233	220	225	241	258	284	310	294	285	330	353	386
Addison	140	78	155	138	148	161	176	241	181	252	234	232
Bennington	151	212	175	245	260	413	376	215	217	290	338	396
Caledonia	248	204	291	266	191	237	266	215	215	186	205	245
Chittenden	238	252	211	208	240	200	215	240	202	199	280	260
Essex	187	172	156	124	93	139	261	201	217	279	170	278
Franklin/Grand Isle	117	130	150	155	140	101	184	135	110	101	138	199
Lamoille	243	219	113	148	146	170	163	188	168	236	288	272
Orange	195	205	192	286	184	218	256	206	183	271	280	335
Orleans	220	214	196	221	286	271	238	210	213	284	270	284
Rutland	237	235	254	225	285	325	250	270	310	520	626	695
Washington	322	247	335	260	258	272	303	375	282	328	360	395
Windham	267	268	262	343	389	575	749	734	780	762	599	732
Windsor	318	241	264	371	421	453	566	425	505	492	502	511
Unknown	< 1	< 1	0	1	1	< 1	2	2	3	7	1	4

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 3-3
Patient Days
for Substance Abuse
Vermont Residents: 1990 - 2001

Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	25,064	22,771	22,913	21,538	24,113	24,109	22,871	23,220	18,961	19,821	22,043	25,856
VT General Hospitals	6,213	5,604	6,577	5,563	6,076	5,793	4,925	6,001	5,060	6,643	6,976	7,775
Vermont State Hospital	11,575	11,724	10,586	9,116	10,549	9,609	8,844	10,973	8,427	7,712	8,543	9,546
Brattleboro Retreat	4,071	3,061	2,802	2,882	3,363	5,254	5,936	4,099	3,782	3,504	4,894	6,102
VA Hospital - WRJ	1,344	746	835	1,238	1,230	897	592	386	324	460	422	568
New Hampshire Hospitals	1,790	1,542	1,174	1,844	1,482	1,547	1,965	998	1,013	1,106	918	1,479
Other Out-of-State Hospitals	71	94	939	895	1,413	1,009	609	763	355	396	290	386

Patient Days by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	25,064	22,771	22,913	21,538	24,113	24,109	22,871	23,220	18,961	19,821	22,043	25,856
Addison	733	329	723	695	704	1,137	1,183	1,508	575	738	661	710
Bennington	1,074	1,048	1,120	1,115	1,181	1,573	1,434	1,186	945	717	848	1,522
Caledonia	940	1,144	1,019	721	723	592	668	616	449	510	469	649
Chittenden	6,467	6,914	5,442	5,916	6,085	5,911	5,468	5,855	5,288	4,969	6,125	6,951
Essex	92	131	119	110	58	54	71	215	429	63	118	163
Franklin/Grand Isle	641	898	1,329	990	1,602	911	1,232	1,411	678	839	1,419	2,095
Lamoille	1,422	1,232	352	426	382	279	236	327	316	360	459	479
Orange	803	635	702	844	702	511	455	431	533	672	772	929
Orleans	816	965	1,034	714	760	767	913	1,061	642	1,017	1,096	1,040
Rutland	2,550	1,631	1,789	1,450	1,908	2,776	1,428	1,388	1,505	1,786	2,682	3,308
Washington	4,356	3,455	4,793	3,293	4,603	3,658	3,011	3,342	2,221	1,708	1,704	2,354
Windham	2,361	1,811	1,936	2,547	2,411	3,058	3,661	3,046	2,639	2,583	2,557	2,714
Windsor	2,572	2,425	2,532	2,577	2,750	2,595	3,022	2,423	2,018	2,288	2,937	2,460
Unknown	237	153	23	140	244	287	89	411	723	1,571	196	482

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 3-4
Average Daily Census
for Substance Abuse
Vermont Residents: 1990 - 2001

Average Daily Census by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	69	62	63	59	66	66	62	64	52	54	60	71
VT General Hospitals	17	15	18	15	17	16	13	16	14	18	19	21
Vermont State Hospital	32	32	29	25	29	26	24	30	23	21	23	26
Brattleboro Retreat	11	8	8	8	9	14	16	11	10	10	13	17
VA Hospital - WRJ	4	2	2	3	3	2	2	1	1	1	1	2
New Hampshire Hospitals	5	4	3	5	4	4	5	3	3	3	3	4
Other Out-of-State Hospitals	< 1	< 1	3	2	4	3	2	2	1	1	1	1

Average Daily Census by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	69	62	63	59	66	66	62	64	52	54	60	71
Addison	2	1	2	2	2	3	3	4	2	2	2	2
Bennington	3	3	3	3	3	4	4	3	3	2	2	4
Caledonia	3	3	3	2	2	2	2	2	1	1	1	2
Chittenden	18	19	15	16	17	16	15	16	14	14	17	19
Essex	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	1	< 1	< 1	< 1
Franklin/Grand Isle	2	2	4	3	4	2	3	4	2	2	4	6
Lamoille	4	3	1	1	1	1	1	1	1	1	1	1
Orange	2	2	2	2	2	1	1	1	1	2	2	3
Orleans	2	3	3	2	2	2	2	3	2	3	3	3
Rutland	7	4	5	4	5	8	4	4	4	5	7	9
Washington	12	9	13	9	13	10	8	9	6	5	5	6
Windham	6	5	5	7	7	8	10	8	7	7	7	7
Windsor	7	7	7	7	8	7	8	7	6	6	8	7
Unknown	1	< 1	< 1	< 1	1	1	< 1	1	2	4	1	1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 3-5
Average Daily Census per 100,000 Population
for Substance Abuse
Vermont Residents: 1990 - 2001

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	12	11	11	10	11	11	10	11	9	9	10	12
VT General Hospitals	3	3	3	3	3	3	2	3	2	3	3	3
Vermont State Hospital	6	6	5	4	5	5	4	5	4	3	4	4
Brattleboro Retreat	2	1	1	1	2	2	3	2	2	2	2	3
VA Hospital - WRJ	1	< 1	< 1	1	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
New Hampshire Hospitals	1	1	1	1	1	1	1	< 1	< 1	1	< 1	1
Other Out-of-State Hospitals	< 1	< 1	< 1	< 1	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	12	11	11	10	11	11	10	11	9	9	10	12
Addison	6	3	6	6	6	9	9	12	4	6	5	5
Bennington	8	8	9	8	9	12	11	9	7	5	6	11
Caledonia	9	11	10	7	7	6	6	6	4	5	4	6
Chittenden	13	14	11	12	12	12	10	11	10	9	11	13
Essex	0	6	5	< 1	2	2	0	9	18	3	5	7
Franklin/Grand Isle	4	5	8	6	9	5	7	8	4	4	7	11
Lamoille	20	17	5	6	5	4	3	4	4	4	5	6
Orange	8	7	7	9	7	5	4	4	5	7	7	9
Orleans	9	11	12	8	8	8	10	11	7	11	11	11
Rutland	11	7	8	6	8	12	6	6	7	8	12	14
Washington	22	17	24	16	22	18	14	16	11	8	8	11
Windham	16	12	13	16	15	19	23	19	17	16	16	17
Windsor	13	12	13	13	14	13	15	12	10	11	14	12
Unknown	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1	< 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 3-6
Average Length of Stay
for Substance Abuse
Vermont Residents: 1990 - 2001

Average Length of Stay by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	19	18	18	16	16	15	12	13	11	10	10	11
VT General Hospitals	9	8	9	8	8	7	6	6	6	6	6	6
Vermont State Hospital	62	57	65	61	71	75	60	55	53	60	59	63
Brattleboro Retreat	32	24	20	17	19	18	17	13	11	10	11	10
VA Hospital - WRJ	14	9	10	12	10	9	8	6	5	5	5	6
New Hampshire Hospitals	11	11	10	10	8	7	6	5	4	5	5	7
Other Out-of-State Hospitals	6	10	15	10	24	12	10	13	7	7	7	7

Average Length of Stay by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	19	18	18	16	16	15	12	13	11	10	10	11
Addison	16	13	14	15	14	20	19	18	9	8	8	8
Bennington	20	14	18	13	12	10	10	15	12	7	7	10
Caledonia	14	20	12	9	13	9	9	10	7	9	8	9
Chittenden	21	21	19	21	18	21	18	17	18	17	15	18
Essex	8	12	12	14	10	6	4	17	31	4	11	9
Franklin/Grand Isle	12	15	19	13	24	18	13	21	12	16	20	20
Lamoille	30	28	15	14	12	8	7	8	8	7	7	7
Orange	16	12	14	11	14	9	6	8	10	9	10	10
Orleans	15	19	22	13	11	11	15	20	12	14	15	14
Rutland	17	11	11	10	11	13	9	8	8	5	7	8
Washington	25	25	26	23	32	24	17	16	14	9	8	10
Windham	21	16	18	17	14	12	11	10	8	8	10	8
Windsor	15	19	18	13	12	10	9	10	7	8	10	8
Unknown	47	31	< 1	< 1	< 1	29	< 1	46	45	37	25	19

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 3-7
Unduplicated Number of People Hospitalized
for Substance Abuse
Vermont Residents: 1990 - 2001
People Served by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	1,032 ± 8	990 ± 8	967 ± 8	994 ± 8	1,067 ± 9	1,153 ± 9	1,232 ± 10	1,210 ± 10	1,173 ± 10	1,372 ± 11	1,532 ± 12	1,645 ± 13
VT General Hospitals	619 ± 5	590 ± 5	609 ± 5	563 ± 5	631 ± 6	650 ± 6	675 ± 6	683 ± 7	626 ± 5	828 ± 7	935 ± 8	942 ± 8
Vermont State Hospital	148	164	138	119	126	111	118	161	135	119	130	131
Brattleboro Retreat	119	115	123	142	149	260	259	249	250	297	367	475
VA Hospital - WRJ	87 ± 2	66 ± 1	64 ± 1	84 ± 1	88 ± 2	74 ± 1	65 ± 1	50 ± 1	45 ± 1	59 ± 1	57 ± 1	64 ± 1
New Hampshire Hospitals	127 ± 2	116 ± 2	93 ± 1	149 ± 2	156 ± 2	181 ± 2	224 ± 2	139 ± 2	195 ± 2	159 ± 2	151 ± 2	168 ± 2
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People Served by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	1,032 ± 8	990 ± 8	967 ± 8	994 ± 8	1,067 ± 9	1,153 ± 9	1,232 ± 10	1,210 ± 10	1,173 ± 10	1,372 ± 11	1,532 ± 12	1,645 ± 13
Addison	39 ± 1	22 ± 0.5	37 ± 1	42 ± 1	39 ± 1	42 ± 1	40 ± 1	61 ± 1	45 ± 1	56 ± 1	55 ± 1	67 ± 1
Bennington	43 ± 1	59 ± 1	41 ± 1	44 ± 1	66 ± 1	97 ± 1	98 ± 1	62 ± 1	61 ± 1	74 ± 1	83 ± 1	98 ± 1
Caledonia	63 ± 1	55 ± 1	68 ± 1	60 ± 1	44 ± 1	55 ± 1	55 ± 1	47 ± 1	49 ± 1	43 ± 1	51 ± 1	51 ± 1
Chittenden	254 ± 3	272 ± 3	236 ± 2	226 ± 2	257 ± 3	212 ± 2	129 ± 3	257 ± 3	212 ± 2	238 ± 2	308 ± 3	287 ± 3
Essex	10 ± 0.3	11 ± 0.3	10 ± 0.3	7 ± 0.3	5 ± 0.2	6 ± 0.2	16 ± 0.4	12 ± 0.4	12 ± 0.4	16 ± 0	10 ± 0.3	13 ± 0.4
Franklin/Grand Isle	43 ± 1	54 ± 1	57 ± 1	57 ± 1	57 ± 1	48 ± 1	68 ± 1	57 ± 1	53 ± 1	48 ± 1	60 ± 1	84 ± 1
Lamoille	39 ± 1	37 ± 1	19 ± 0.4	23 ± 0.5	25 ± 0.5	29 ± 0.5	22 ± 0.4	24 ± 0.5	23 ± 0.5	33 ± 1	48 ± 1	49 ± 1
Orange	43 ± 1	44 ± 1	31 ± 1	36 ± 1	40 ± 1	42 ± 1	59 ± 1	43 ± 1	44 ± 1	59 ± 1	59 ± 1	71 ± 1
Orleans	46 ± 1	45 ± 1	40 ± 1	47 ± 1	44 ± 1	55 ± 1	47 ± 1	43 ± 1	42 ± 1	56 ± 1	54 ± 1	52 ± 1
Rutland	120 ± 2	116 ± 2	127 ± 2	99 ± 1	125 ± 2	154 ± 2	116 ± 2	125 ± 2	159 ± 2	231 ± 2	290 ± 3	302 ± 3
Washington	140 ± 2	111 ± 2	132 ± 2	104 ± 1	103 ± 1	114 ± 2	117 ± 2	156 ± 2	121 ± 2	142 ± 2	148 ± 2	166 ± 2
Windham	86 ± 1	90 ± 1	85 ± 1	104 ± 1	120 ± 2	153 ± 2	187 ± 2	184 ± 2	192 ± 2	204 ± 2	195 ± 2	211 ± 2
Windsor	135 ± 2	100 ± 1	107 ± 1	160 ± 2	157 ± 2	172 ± 2	196 ± 2	154 ± 2	187 ± 2	172 ± 2	199 ± 2	215 ± 2
Unknown	4 ± 0.2	4 ± 0.2	1 ± 0.1	5 ± 0.2	7 ± 0.2	9 ± 0.3	6 ± 0.2	6 ± 0.2	16 ± 0.4	42 ± 1	8 ± 0.1	21 ± 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table 3-8
Unduplicated Number of People Hospitalized per 100,000 Population
for Substance Abuse
Vermont Residents: 1990 - 2001

People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	183 ± 1	175 ± 1	170 ± 1	173 ± 1	184 ± 2	197 ± 2	206 ± 2	202 ± 2	195 ± 2	227 ± 2	252 ± 2	269 ± 2
VT General Hospitals	110 ± 0.9	104 ± 0.9	107 ± 0.9	98 ± 0.9	109 ± 1	111 ± 1	113 ± 1	114 ± 1	104 ± 0.8	137 ± 1	154 ± 1	154 ± 1
Vermont State Hospital	26	29	24	21	22	19	20	27	22	20	21	21
Brattleboro Retreat	21	20	22	25	26	44	43	42	42	49	60	78
VA Hospital - WRJ	15 ± 0.4	12 ± 0.2	11 ± 0.2	15 ± 0.2	15 ± 0.3	13 ± 0.2	11 ± 0.2	8 ± 0.2	7 ± 0.2	10 ± 0.2	9 ± 0.2	11 ± 0.2
New Hampshire Hospital	23 ± 0.4	20 ± 0.4	16 ± 0.2	26 ± 0.3	27 ± 0.3	31 ± 0.3	38 ± 0.3	23 ± 0.3	32 ± 0.3	26 ± 0.3	25 ± 0.3	27 ± 0.3
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	183 ± 1	175 ± 1	170 ± 1	173 ± 1	184 ± 2	197 ± 2	206 ± 2	202 ± 2	195 ± 2	227 ± 2	250 ± 2	270 ± 2
Addison	118 ± 3	66 ± 2	110 ± 3	123 ± 3	113 ± 3	121 ± 3	114 ± 3	173 ± 3	127 ± 3	158 ± 3	153 ± 3	187 ± 3
Bennington	120 ± 3	164 ± 3	114 ± 3	121 ± 3	180 ± 3	264 ± 3	265 ± 3	168 ± 3	166 ± 3	202 ± 3	225 ± 3	266 ± 3
Caledonia	226 ± 4	196 ± 4	241 ± 4	210 ± 4	153 ± 3	189 ± 3	188 ± 3	161 ± 3	167 ± 3	146 ± 3	171 ± 3	172 ± 3
Chittenden	193 ± 2	204 ± 2	175 ± 1	165 ± 1	185 ± 2	151 ± 1	91 ± 2	180 ± 2	147 ± 1	164 ± 1	209 ± 2	196 ± 2
Essex	156 ± 5	172 ± 5	156 ± 5	109 ± 5	77 ± 3	92 ± 3	246 ± 6	186 ± 6	186 ± 6	249 ± 0	155 ± 5	202 ± 6
Franklin/Grand Isle	95 ± 2	117 ± 2	122 ± 2	120 ± 2	118 ± 2	97 ± 2	136 ± 2	113 ± 2	104 ± 2	93 ± 2	114 ± 2	161 ± 2
Lamoille	198 ± 5	184 ± 5	93 ± 2	110 ± 2	117 ± 2	134 ± 2	100 ± 2	108 ± 2	102 ± 2	144 ± 4	205 ± 4	212 ± 3
Orange	164 ± 4	167 ± 4	117 ± 4	134 ± 4	147 ± 4	153 ± 4	213 ± 4	155 ± 4	158 ± 4	211 ± 4	209 ± 4	253 ± 4
Orleans	191 ± 4	186 ± 4	163 ± 4	189 ± 4	175 ± 4	216 ± 4	183 ± 4	167 ± 4	162 ± 4	216 ± 4	205 ± 4	199 ± 3
Rutland	193 ± 3	187 ± 3	204 ± 3	158 ± 2	198 ± 3	243 ± 3	182 ± 3	198 ± 3	252 ± 3	366 ± 3	457 ± 5	477 ± 5
Washington	255 ± 4	201 ± 4	238 ± 4	185 ± 2	182 ± 2	200 ± 4	204 ± 3	272 ± 3	211 ± 3	246 ± 3	254 ± 3	286 ± 3
Windham	207 ± 2	215 ± 2	202 ± 2	244 ± 2	279 ± 5	353 ± 5	428 ± 5	422 ± 5	439 ± 5	465 ± 5	439 ± 5	478 ± 5
Windsor	250 ± 4	184 ± 2	196 ± 2	289 ± 4	281 ± 4	305 ± 4	346 ± 4	272 ± 4	329 ± 4	301 ± 4	345 ± 3	375 ± 4
Unknown	0.7 ± 0.0	0.7 ± 0.0	0	1 ± <.1	1 ± <.1	1.5 ± 0.1	1 ± <.1	1 ± <.1	3 ± <.1	7 ± 0.2	1 ± <.1	3 ± 0.1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 4-1
Episodes of Hospitalization
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 2001

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	153	138	157	246	246	278	298	274	312	376	347	325
VT General Hospitals	59	58	46	46	35	37	29	27	14	17	16	21
Vermont State Hospital	2	0	2	1	3	0	3	3	5	5	3	4
Brattleboro Retreat	62	53	52	99	104	130	161	164	193	252	275	250
New Hampshire Hospitals	25	25	53	91	97	98	95	73	82	97	48	35
Other Out-of-State Hospitals	5	2	4	9	7	13	10	7	18	5	5	15

Episodes of Hospitalization by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	153	138	157	246	246	278	298	274	312	376	347	325
Addison	4	6	3	4	7	7	16	14	10	16	20	20
Bennington	14	14	13	18	18	28	24	21	29	28	28	29
Caledonia	8	6	7	20	8	15	15	17	16	19	20	11
Chittenden	29	18	16	37	36	38	34	33	38	54	55	35
Essex	2	4	6	0	2	1	1	1	2	1	1	1
Franklin/Grand Isle	4	11	11	19	8	9	17	11	13	17	17	14
Lamoille	5	2	1	7	8	10	2	4	10	15	5	8
Orange	5	1	12	12	10	15	21	9	7	20	14	16
Orleans	8	8	9	22	17	17	11	6	6	19	10	14
Rutland	9	7	13	13	21	27	32	35	38	66	50	57
Washington	16	12	14	13	26	19	29	22	23	14	22	17
Windham	26	30	28	40	51	54	65	57	64	62	45	50
Windsor	23	19	24	41	33	34	29	41	54	43	57	52
Unknown	0	0	0	0	1	4	2	3	2	2	3	1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Table 4-2
Episodes of Hospitalization Per 100,000 Population
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 2001

Episodes per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	107	96	109	169	168	189	202	186	213	256	235	213
VT General Hospitals	41	40	32	32	24	25	20	18	10	12	11	14
Vermont State Hospital	1	0	1	1	2	0	2	2	3	3	2	3
Brattleboro Retreat	43	37	36	68	71	88	109	112	131	171	186	164
New Hampshire Hospitals	17	17	37	63	66	67	64	50	56	66	33	23
Other Out-of-State Hospitals	3	1	3	6	5	9	7	5	12	3	3	10

Episodes per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	107	96	109	169	168	189	202	186	213	256	235	213
Addison	46	70	35	46	79	79	180	158	113	180	223	219
Bennington	155	156	145	201	201	312	268	237	329	319	320	314
Caledonia	104	78	92	261	104	195	196	224	212	253	266	137
Chittenden	94	57	51	115	110	115	101	98	112	158	159	102
Essex	118	237	357	0	118	59	59	60	120	60	60	62
Franklin/Grand Isle	30	82	82	139	58	64	120	78	91	118	117	95
Lamoille	98	39	19	132	149	184	36	73	180	268	89	135
Orange	69	14	166	165	137	205	287	124	97	277	194	209
Orleans	117	118	133	323	250	250	162	89	90	287	151	192
Rutland	60	47	87	87	140	180	213	235	257	448	339	376
Washington	114	86	101	93	187	136	208	160	168	103	161	118
Windham	244	283	264	376	479	507	612	542	612	595	432	453
Windsor	171	142	179	305	244	251	214	305	403	321	425	371
Unknown	0	0	0	0	1	3	1	2	1	1	2	1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 4-3
Patient Days
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 2001

Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	3,499	2,563	2,922	5,424	4,563	5,054	5,426	4,572	4,485	4,246	4,834	4,304
VT General Hospitals	433	452	353	311	240	121	111	132	36	62	47	45
Vermont State Hospital	7	0	202	210	22	0	20	185	75	75	6	21
Brattleboro Retreat	2,585	1,724	1,399	2,707	2,655	3,521	4,102	3,567	3,554	3,451	4,468	3,797
New Hampshire Hospitals	342	373	928	2,046	1,568	1,255	1,038	643	555	613	242	201
Other Out-of-State Hospitals	132	14	40	150	78	157	155	45	265	45	71	240

Patient Days by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	3,499	2,563	2,922	5,424	4,563	5,054	5,426	4,572	4,485	4,246	4,834	4,304
Addison	127	104	19	55	122	81	287	194	172	167	327	375
Bennington	96	140	118	274	439	313	370	430	228	309	368	300
Caledonia	258	136	58	359	241	98	242	228	123	149	363	90
Chittenden	680	326	488	641	519	577	647	739	933	483	842	463
Essex	8	118	127	0	31	2	11	123	24	8	7	11
Franklin/Grand Isle	102	264	209	398	133	183	407	143	215	199	207	169
Lamoille	36	92	4	149	185	134	24	74	317	118	50	90
Orange	67	13	113	298	131	193	343	137	45	150	276	267
Orleans	92	106	129	343	248	229	316	60	55	126	109	278
Rutland	170	53	213	231	338	429	733	445	355	906	505	750
Washington	571	199	167	279	295	416	400	335	529	144	297	234
Windham	643	574	940	1,707	1,319	1,643	989	857	949	1,041	659	603
Windsor	649	438	337	690	531	608	601	786	499	420	795	659
Unknown	0	0	0	0	31	148	56	21	41	26	29	15

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Table 4-4
Average Daily Census
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 2001

Average Daily Census by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	10	7	8	15	13	14	15	13	12	12	13	12
VT General Hospitals	1	1	1	1	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vermont State Hospital	< 1	0	1	1	< 1	0	< 1	1	< 1	< 1	< 1	< 1
Brattleboro Retreat	7	5	4	7	7	10	11	10	10	9	12	10
New Hampshire Hospitals	1	1	3	6	4	3	3	2	2	2	1	1
Other Out-of-State Hospitals	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1	< 1	1

Average Daily Census by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	10	7	8	15	13	14	15	13	12	12	13	12
Addison	< 1	< 1	< 1	< 1	< 1	< 1	1	1	< 1	< 1	1	1
Bennington	< 1	< 1	< 1	1	1	1	1	1	1	1	1	1
Caledonia	1	< 1	< 1	1	1	< 1	1	1	< 1	< 1	1	< 1
Chittenden	2	1	1	2	1	2	2	2	3	1	2	1
Essex	< 1	< 1	< 1	0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Franklin/Grand Isle	< 1	1	1	1	< 1	1	1	< 1	1	1	1	< 1
Lamoille	< 1	< 1	< 1	< 1	1	< 1	< 1	< 1	1	< 1	< 1	< 1
Orange	< 1	< 1	< 1	1	< 1	1	1	< 1	< 1	< 1	1	1
Orleans	< 1	< 1	< 1	1	1	1	1	< 1	< 1	< 1	< 1	1
Rutland	< 1	< 1	1	1	1	1	2	1	1	2	1	2
Washington	2	1	0	1	1	1	1	1	1	< 1	1	1
Windham	2	2	3	5	4	5	3	2	3	3	2	2
Windsor	2	1	1	2	1	2	2	2	1	1	2	2
Unknown	0	0	0	0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Table 4-5
Average Daily Census Per 100,000 Population
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 2001

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	7	5	6	10	9	9	10	9	8	8	9	8
VT General Hospitals	1	1	1	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vermont State Hospital	< 1	0	< 1	< 1	< 1	0	< 1	< 1	< 1	< 1	< 1	< 1
Brattleboro Retreat	5	3	3	5	5	7	8	7	7	6	8	7
New Hampshire Hospitals	1	1	2	4	3	2	2	1	1	1	< 1	< 1
Other Out-of-State Hospitals	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	0	< 1	< 1	< 1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	7	5	6	10	9	9	10	9	8	8	9	8
Addison	4	3	1	2	4	3	9	6	5	5	10	11
Bennington	3	4	4	8	13	10	11	13	7	10	12	9
Caledonia	9	5	2	13	9	3	9	8	4	5	13	3
Chittenden	6	3	4	5	4	5	5	6	8	4	7	4
Essex	1	19	21	0	5	< 1	2	20	4	1	1	2
Franklin/Grand Isle	2	5	4	8	3	4	8	3	4	4	4	3
Lamoille	2	5	< 1	8	9	7	1	4	16	6	2	4
Orange	3	< 1	4	11	5	7	13	5	2	6	10	10
Orleans	4	4	5	14	10	9	13	2	2	5	5	10
Rutland	3	1	4	4	6	8	13	8	7	17	9	14
Washington	11	4	3	5	6	8	8	7	11	3	6	4
Windham	17	15	24	44	34	42	25	22	25	27	17	15
Windsor	13	9	7	14	11	12	12	16	10	9	16	13
Unknown	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 4-6
Average Length of Stay
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 2001

Average Length of Stay by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	23	19	19	22	19	18	18	17	14	11	14	13
VT General Hospitals	7	8	8	7	7	3	4	5	3	4	3	2
Vermont State Hospital	4	0	101	210	7	0	7	62	15	15	2	5
Brattleboro Retreat	42	33	27	27	26	27	25	22	18	14	16	15
New Hampshire Hospitals	14	15	18	22	16	13	11	9	7	6	5	6
Other Out-of-State Hospitals	26	7	10	17	11	12	16	6	15	9	14	16

Average Length of Stay by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	23	19	19	22	19	18	18	17	14	11	14	13
Addison	32	17	6	14	17	12	18	14	17	10	16	19
Bennington	7	10	9	15	24	11	15	20	8	11	13	10
Caledonia	32	23	8	18	30	7	16	13	8	8	18	8
Chittenden	23	18	31	17	14	15	19	22	25	9	15	13
Essex	4	30	21	0	16	2	11	123	12	8	7	11
Franklin/Grand Isle	26	24	19	21	17	20	24	13	17	12	12	12
Lamoille	7	46	4	21	23	13	12	19	32	8	10	11
Orange	13	13	9	25	13	13	16	15	6	8	20	17
Orleans	12	13	14	16	15	13	29	10	9	7	11	20
Rutland	19	8	16	18	16	16	23	13	9	14	10	13
Washington	36	17	12	21	11	22	14	15	23	10	14	14
Windham	25	19	34	43	26	30	15	15	15	17	15	12
Windsor	28	23	14	17	16	18	21	19	9	10	14	13
Unknown	0	0	0	0	31	37	28	7	21	13	10	15

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Table 4-7
Unduplicated Number of Children and Adolescents Served
for Behavioral Health Services
Vermont Children and Adolescents: 1990 - 2001

People Served by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	135 ± 3	116 ± 3	122 ± 3	164 ± 4	186 ± 4	204 ± 5	237 ± 5	207 ± 3	220 ± 4	284 ± 5	289 ± 6	275 ± 5
VT General Hospitals	55 ± 2	51 ± 1	42 ± 1	34 ± 1	34 ± 0.9	30 ± 0.9	26 ± 0.8	27 ± 1	13 ± 0.4	17 ± 0.6	15 ± 0.5	21 ± 1
Vermont State Hospital	2	0	1	1	2	0	3	3	5	5	3	4
Brattleboro Retreat	57	51	40	69	71	102	136	131	111	193	229	212
VA Hospital - WRJ	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
New Hampshire Hospitals	24 ± 0.8	22 ± 0.8	45 ± 1	79 ± 2	91 ± 2	90 ± 2	84 ± 2	69 ± 2	71 ± 2	84 ± 2	47 ± 1	31 ± 1
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People Served by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	135 ± 3	116 ± 3	122 ± 3	164 ± 4	186 ± 4	204 ± 5	237 ± 5	207 ± 3	220 ± 4	284 ± 5	289 ± 6	275 ± 5
Addison	4 ± 0.2	6 ± 0.3	3 ± 0.2	4 ± 0.2	4 ± 0.2	7 ± 0.3	13 ± 0.4	9 ± 0.3	7 ± 0.3	12 ± 0.4	15 ± 1	16 ± 0.5
Bennington	1 ± <.1	2 ± 0.2	3 ± 0.2	7 ± 0.3	11 ± 0.4	10 ± 0.4	13 ± 0.4	15 ± 0.4	19 ± 0.5	19 ± 0.6	23 ± 1	28 ± 1
Caledonia	7 ± 0.3	6 ± 0.3	6 ± 0.3	10 ± 0.4	4 ± 0.2	10 ± 0.4	12 ± 0.4	10 ± 0.4	14 ± 0.4	16 ± 0.5	17 ± 1	10 ± 0.3
Chittenden	24 ± 0.9	17 ± 0.6	14 ± 0.5	29 ± 0.9	28 ± 0.8	31 ± 0.8	22 ± 0.7	26 ± 1	25 ± 1	40 ± 1	49 ± 1	33 ± 1
Essex	2 ± 0.2	3 ± 0.2	4 ± 0.2	0	1 ± <.1	1 ± <.1	1 ± <.1	1 ± 0.1	2 ± 0.1	1 ± 0.1	1 ± 0.0	1 ± 0.0
Franklin/Grand Isle	3 ± 0.2	7 ± 0.3	9 ± 0.4	10 ± 0.4	6 ± 0.3	9 ± 0.3	16 ± 0.5	9 ± 0.3	11 ± 0.4	13 ± 0.4	15 ± 0.5	14 ± 0.4
Lamoille	5 ± 0.3	1 ± <.1	1 ± <.1	5 ± 0.2	6 ± 0.3	10 ± 0.4	2 ± 0.2	3 ± 0.2	5 ± 0.2	9 ± 0.3	5 ± 0.2	8 ± 0.3
Orange	4 ± 0.2	1 ± <.1	9 ± 0.3	6 ± 0.3	8 ± 0.3	9 ± 0.3	16 ± 0.6	8 ± 0.3	6 ± 0.2	12 ± 0.4	8 ± 0.3	11 ± 0.4
Orleans	8 ± 0.3	6 ± 0.3	8 ± 0.3	9 ± 0.4	12 ± 0.4	13 ± 0.4	10 ± 0.4	6 ± 0.3	5 ± 0.2	16 ± 0.5	10 ± 0.4	12 ± 0.4
Rutland	5 ± 0.3	7 ± 0.3	12 ± 0.4	11 ± 0.4	19 ± 0.6	20 ± 0.7	18 ± 0.6	27 ± 1	25 ± 1	49 ± 1	42 ± 1	48 ± 1
Washington	13 ± 0.5	10 ± 0.4	10 ± 0.4	10 ± 0.3	20 ± 0.6	13 ± 0.4	23 ± 0.7	17 ± 0.5	17 ± 0.5	13 ± 0.4	17 ± 1	13 ± 0.4
Windham	22 ± 0.6	28 ± 0.9	18 ± 0.6	28 ± 0.9	38 ± 0.9	38 ± 1	52 ± 1	43 ± 1	44 ± 1	50 ± 1	38 ± 1	39 ± 1
Windsor	21 ± 0.7	15 ± 0.5	21 ± 0.7	32 ± 0.9	24 ± 0.7	28 ± 0.8	26 ± 0.8	32 ± 1	42 ± 1	37 ± 1	46 ± 1	38 ± 1
Unknown	0	0	0	0	1 ± <.1	3 ± 0.2	2 ± 0.2	0	2 ± 0.1	2 ± 0.2	3 ± 0.2	1 ± 0.0

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Table 4-8
Unduplicated Number of Children and Adolescents Served Per 100,000 Population
 for Behavioral Health Services
 Vermont Children and Adolescents: 1990 - 2001

People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	94 \pm 2	81 \pm 2	85 \pm 2	113 \pm 3	127 \pm 3	139 \pm 3.2	161 \pm 4	141 \pm 2	150 \pm 3	193 \pm 3	190 \pm 4	186 \pm 3
VT General Hospitals	38 \pm 1	35 \pm 1	29 \pm 0.8	24 \pm 0.7	23 \pm 0.6	21 \pm 0.6	18 \pm 0.5	18 \pm 0.7	9 \pm 0.3	12 \pm 0.4	10 \pm 0.3	14 \pm 0.7
Vermont State Hospital	1	0	1	1	1	0	2	2	3	3	2	3
Brattleboro Retreat	40	35	28	47	49	69	92	89	76	131	150	144
VA Hospital - WRJ	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0
New Hampshire Hospitals	17 \pm 0.5	15 \pm 0.5	32 \pm 0.9	54 \pm 1	62 \pm 1	61 \pm 2	57 \pm 1	47 \pm 1	48 \pm 1	57 \pm 1	31 \pm 1	21 \pm 1
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	94 \pm 2	81 \pm 2	85 \pm 2	113 \pm 3	127 \pm 3	139 \pm 3	161 \pm 4	141 \pm 2	150 \pm 3	193 \pm 3	196 \pm 4	186 \pm 3
Addison	47 \pm 2	70 \pm 4	35 \pm 2	46 \pm 2	46 \pm 2	79 \pm 4	146 \pm 5	101 \pm 3	79 \pm 3	135 \pm 4	168 \pm 6	179 \pm 5
Bennington	11 \pm <.1	22 \pm 2	34 \pm 2	78 \pm 3	123 \pm 4	112 \pm 4	146 \pm 5	169 \pm 5	216 \pm 6	218 \pm 7	264 \pm 8	321 \pm 8
Caledonia	91 \pm 4	79 \pm 4	79 \pm 4	131 \pm 6	52 \pm 3	131 \pm 6	157 \pm 5	132 \pm 5	186 \pm 5	214 \pm 7	227 \pm 7	134 \pm 5
Chittenden	78 \pm 3	54 \pm 2	44 \pm 2	91 \pm 3	86 \pm 3	94 \pm 3	66 \pm 2	77 \pm 3	74 \pm 3	118 \pm 3	143 \pm 3	96 \pm 3
Essex	119 \pm 12	179 \pm 12	238 \pm 12	0	59 \pm <.1	59 \pm <.1	59 \pm <.1	60 \pm 6	120 \pm 6	60 \pm 6	60 \pm 0	60 \pm <.1
Franklin/Grand Isle	23 \pm 1	53 \pm 2	67 \pm 3	73 \pm 3	43 \pm 2	64 \pm 2	114 \pm 4	63 \pm 2	77 \pm 3	91 \pm 3	104 \pm 3	97 \pm 3
Lamoille	99 \pm 5	19 \pm <.1	19 \pm 0	95 \pm 4	112 \pm 5	185 \pm 7	37 \pm 4	54 \pm 4	90 \pm 4	161 \pm 5	89 \pm 3	142 \pm 5
Orange	55 \pm 3	14 \pm <.1	125 \pm 5	83 \pm 4	110 \pm 4	123 \pm 5	220 \pm 8	110 \pm 4	83 \pm 3	167 \pm 6	111 \pm 5	153 \pm 5
Orleans	117 \pm 4	88 \pm 4.1	118 \pm 5	133 \pm 6	177 \pm 6	192 \pm 6	148 \pm 6	89 \pm 4	75 \pm 3	243 \pm 8	152 \pm 6	182 \pm 6
Rutland	33 \pm 2	47 \pm 2	81 \pm 3	74 \pm 3	127 \pm 4	134 \pm 5	120 \pm 4	181 \pm 7	169 \pm 7	335 \pm 7	287 \pm 8	328 \pm 8
Washington	93 \pm 3	72 \pm 3	72 \pm 3	72 \pm 2	144 \pm 4	94 \pm 3	166 \pm 5	123 \pm 4	124 \pm 4	96 \pm 3	125 \pm 4	96 \pm 3
Windham	207 \pm 6	266 \pm 8	171 \pm 6	265 \pm 8	359 \pm 9	360 \pm 10	494 \pm 13	409 \pm 10	421 \pm 10	483 \pm 10	367 \pm 9	376 \pm 8
Windsor	157 \pm 5	113 \pm 4	158 \pm 5	239 \pm 7	179 \pm 5	208 \pm 6	193 \pm 6	238 \pm 7	313 \pm 7	278 \pm 7	345 \pm 8	285 \pm 7
Unknown	0	0	0	0	1 \pm <.1	2 \pm 4	1 \pm 0.1	0 \pm 0	1 \pm <.1	1 \pm <.1	2 \pm 0.1	1 \pm <.1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 5-1
Episodes of Hospitalization
for Behavioral Health Services
Vermont **Adults:** 1990 - 2001

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	3,370	3,412	3,358	3,600	3,833	3,886	4,230	4,190	4,070	4,083	4,324	4,316
VT General Hospitals	2,001	1,928	1,974	2,023	2,196	2,105	2,485	2,549	2,437	2,569	2,697	2,623
Vermont State Hospital	486	501	399	381	402	381	351	377	304	288	258	296
Brattleboro Retreat	164	189	204	247	273	389	478	514	568	460	575	687
VA Hospital - WRJ	193	199	182	150	163	156	141	236	236	255	260	228
New Hampshire Hospitals	489	551	500	653	696	717	669	409	418	406	444	439
Other Out-of-State Hospitals	37	44	99	146	103	138	106	105	107	105	90	43

Episodes of Hospitalization by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	3,370	3,412	3,358	3,600	3,833	3,886	4,230	4,190	4,070	4,083	4,324	4,316
Addison	109	108	121	144	149	146	183	182	158	238	206	211
Bennington	205	236	216	272	278	317	308	212	202	210	231	216
Caledonia	142	148	146	168	151	166	168	151	135	126	136	150
Chittenden	789	806	690	723	802	721	720	801	773	698	823	782
Essex	29	29	29	35	31	35	43	36	40	36	27	34
Franklin/Grand Isle	151	157	181	167	177	142	203	179	159	148	195	222
Lamoille	100	116	94	96	92	90	106	116	110	130	144	144
Orange	154	174	167	198	151	173	175	158	145	149	173	176
Orleans	157	154	137	164	179	148	147	158	136	173	143	137
Rutland	355	382	381	354	391	423	414	436	557	568	676	675
Washington	475	427	475	437	495	472	577	608	458	460	506	513
Windham	247	246	288	348	369	471	572	619	635	543	485	510
Windsor	440	419	430	481	552	561	595	513	536	535	561	507
Unknown	17	10	3	13	16	21	19	21	26	69	18	39

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont adults include residents age 18 and older.

Table 5-2
Episodes of Hospitalization Per 100,000 Population
for Behavioral Health Services
Vermont **Adults:** 1990 - 2001

Episodes per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	804	806	786	830	872	874	941	930	898	893	937	938
VT General Hospitals	477	456	462	466	500	473	553	566	537	562	585	570
Vermont State Hospital	116	118	93	88	91	86	78	84	67	63	56	64
Brattleboro Retreat	39	45	48	57	62	87	106	114	125	101	125	149
VA Hospital - WRJ	46	47	43	35	37	35	31	52	52	56	56	50
New Hampshire Hospitals	117	130	117	150	158	161	149	91	92	89	96	95
Other Out-of-State Hospitals	9	10	23	34	23	31	24	23	24	23	20	9

Episodes per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	804	806	786	830	872	874	941	930	898	893	937	938
Addison	448	439	487	570	582	563	697	691	596	889	762	780
Bennington	764	876	798	993	1,007	1,139	1,100	759	722	748	818	776
Caledonia	705	728	711	805	715	776	777	696	619	573	613	688
Chittenden	783	791	670	691	756	671	662	734	703	629	734	689
Essex	616	616	615	736	648	728	892	751	835	752	562	702
Franklin/Grand Isle	471	481	545	492	511	402	565	493	433	397	515	583
Lamoille	683	776	617	615	577	553	638	691	646	751	819	819
Orange	815	911	866	1,009	759	858	858	772	704	717	824	848
Orleans	913	882	775	909	976	794	778	831	708	890	727	715
Rutland	754	810	805	741	813	875	852	901	1,151	1,172	1,389	1,396
Washington	1,160	1,035	1,142	1,036	1,161	1,095	1,326	1,396	1,046	1,044	1,140	1,169
Windham	799	789	916	1,090	1,142	1,440	1,732	1,871	1,909	1,620	1,435	1,529
Windsor	1,083	1,023	1,042	1,149	1,305	1,312	1,379	1,188	1,235	1,225	1,275	1,161
Unknown	4	2	1	3	4	5	4	5	6	15	4	8

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont adults include residents age 18 and older.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table 5-3
Patient Days
for Behavioral Health Services
Vermont **Adults:** 1990 - 2001

Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	78,816	75,253	74,347	68,531	66,223	62,932	59,493	56,976	50,063	50,172	48,762	51,108
VT General Hospitals	22,402	21,614	21,934	20,980	20,722	19,377	19,923	19,649	18,078	19,992	19,028	19,554
Vermont State Hospital	41,258	37,143	34,928	31,392	27,756	27,059	23,432	23,642	19,886	19,740	17,957	19,018
Brattleboro Retreat	4,580	4,564	4,139	4,558	4,934	6,214	8,271	8,142	7,081	5,331	6,840	7,257
VA Hospital - WRJ	3,100	2,871	4,461	1,428	2,224	2,412	2,048	1,850	1,484	1,493	1,543	1,745
New Hampshire Hospitals	6,974	8,509	7,028	8,709	8,404	5,901	4,813	2,347	2,266	2,486	2,480	3,056
Other Out-of-State Hospitals	502	552	1,857	1,464	2,183	1,969	1,006	1,346	1,268	1,130	914	478

Patient Days by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	78,816	75,253	74,347	68,531	66,223	62,932	59,493	56,976	50,063	50,172	48,762	51,108
Addison	1,861	1,591	2,310	2,695	2,156	2,333	2,764	2,724	1,869	2,601	2,018	2,104
Bennington	3,775	4,027	3,622	3,863	4,131	4,247	3,678	3,298	2,452	2,134	2,431	2,677
Caledonia	2,676	2,986	2,614	1,974	1,932	1,848	1,807	1,736	1,401	1,324	1,158	1,288
Chittenden	17,901	19,631	18,070	17,540	16,421	16,083	12,970	14,204	13,672	13,749	14,037	14,610
Essex	285	389	291	418	720	362	510	381	597	750	382	324
Franklin/Grand Isle	3,653	3,730	5,495	3,392	4,111	2,841	3,555	3,108	2,407	2,943	3,049	3,856
Lamoille	2,808	2,653	1,834	2,185	1,656	1,076	1,304	1,371	1,359	1,698	1,136	1,137
Orange	2,693	2,859	3,328	2,717	2,040	2,020	2,286	1,893	2,067	1,790	1,905	1,987
Orleans	2,273	2,751	2,472	2,169	2,395	2,056	2,720	2,226	1,737	1,937	1,585	1,747
Rutland	6,115	5,573	5,645	4,807	4,895	6,427	4,643	3,999	4,402	3,715	4,552	5,122
Washington	18,549	14,837	14,241	12,492	12,454	10,777	9,634	8,936	5,981	5,696	5,195	5,768
Windham	6,101	5,599	7,110	6,575	5,564	6,030	7,502	7,015	6,526	5,287	5,249	4,992
Windsor	8,933	8,273	7,230	7,202	7,138	6,256	5,791	4,950	4,577	4,401	5,341	4,656
Unknown	1,193	354	85	502	610	576	329	1,135	1,016	2,147	724	840

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont adults include residents age 18 and older.

Table 5-4
Average Daily Census
for Behavioral Health Services
Vermont **Adults:** 1990 - 2001

Average Daily Census by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	216	206	203	188	181	172	163	156	137	137	134	140
VT General Hospitals	61	59	60	57	57	53	54	54	50	55	52	54
Vermont State Hospital	113	102	95	86	76	74	64	65	54	54	49	52
Brattleboro Retreat	13	13	11	12	14	17	23	22	19	15	19	20
VA Hospital - WRJ	8	8	12	4	6	7	6	5	4	4	4	5
New Hampshire Hospitals	19	23	19	24	23	16	13	6	6	7	7	8
Other Out-of-State Hospitals	1	2	5	4	6	5	3	4	3	3	3	1

Average Daily Census by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	216	206	203	188	181	172	163	156	137	137	134	140
Addison	5	4	6	7	6	6	8	7	5	7	6	6
Bennington	10	11	10	11	11	12	10	9	7	6	7	7
Caledonia	7	8	7	5	5	5	5	5	4	4	3	4
Chittenden	49	54	49	48	45	44	35	39	37	38	38	40
Essex	1	1	1	1	2	1	1	1	2	2	1	1
Franklin/Grand Isle	10	10	15	9	11	8	10	9	7	8	8	11
Lamoille	8	7	5	6	5	3	4	4	4	5	3	3
Orange	7	8	9	7	6	6	6	5	6	5	5	5
Orleans	6	8	7	6	7	6	7	6	5	5	4	5
Rutland	17	15	15	13	13	18	13	11	12	10	12	14
Washington	51	41	39	34	34	30	26	24	16	16	14	16
Windham	17	15	19	18	15	17	20	19	18	14	14	14
Windsor	24	23	20	20	20	17	16	14	13	12	15	13
Unknown	3	1	< 1	1	2	2	1	3	3	6	2	2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont adults include residents age 18 and older.

Table 5-5
Average Daily Census Per 100,000 Population
for Behavioral Health Services
Vermont **Adults:** 1990 - 2001

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	52	49	48	43	41	39	36	35	30	30	29	30
VT General Hospitals	15	14	14	13	13	12	12	12	11	12	11	12
Vermont State Hospital	27	24	22	20	17	17	14	14	12	12	11	11
Brattleboro Retreat	2	2	3	1	1	1	1	5	4	3	4	4
VA Hospital - WRJ	5	6	4	5	5	4	3	1	1	1	1	1
New Hampshire Hospitals	0	0	1	1	1	1	1	1	1	1	1	2
Other Out-of-State Hospitals	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	1	1	1	< 1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	52	49	48	43	41	39	36	35	30	30	29	30
Addison	21	18	25	29	23	25	29	28	19	27	20	21
Bennington	39	41	37	39	41	42	36	32	24	21	24	26
Caledonia	36	40	35	26	25	24	23	22	18	16	14	16
Chittenden	49	53	48	46	42	41	33	36	34	34	34	35
Essex	17	23	17	24	41	21	29	22	34	43	22	18
Franklin/Grand Isle	31	31	45	27	33	22	27	23	18	22	22	28
Lamoille	53	49	33	38	28	18	21	22	22	27	18	18
Orange	39	41	47	38	28	27	31	25	27	24	25	26
Orleans	36	43	38	33	36	30	39	32	25	27	22	25
Rutland	36	32	33	28	28	36	26	23	25	21	26	29
Washington	124	99	94	81	80	68	60	56	37	35	32	36
Windham	54	49	62	56	47	51	62	58	54	43	43	41
Windsor	60	55	48	47	46	40	37	31	29	28	33	29
Unknown	1	0	< 1	0	0	< 1	< 1	1	1	1	< 1	1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Vermont adults include residents age 18 and older.

Table 5-6
Average Length of Stay
for Behavioral Health Services
Vermont **Adults:** 1990 - 2001

Average Length of Stay by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	23	22	22	19	17	16	14	14	12	12	11	12
VT General Hospitals	11	11	11	10	9	9	8	8	7	8	7	7
Vermont State Hospital	85	74	88	82	69	71	67	63	65	69	70	64
Brattleboro Retreat	28	24	20	18	18	16	17	16	12	12	12	11
VA Hospital - WRJ	16	14	25	10	14	15	15	8	6	6	6	8
New Hampshire Hospitals	14	15	14	13	12	8	7	6	5	6	6	7
Other Out-of-State Hospitals	14	13	19	10	21	14	9	13	12	11	10	11

Average Length of Stay by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	23	22	22	19	17	16	14	14	12	12	11	12
Addison	17	15	19	19	14	16	15	15	12	11	10	10
Bennington	18	17	17	14	15	13	12	16	12	10	11	12
Caledonia	19	20	18	12	13	11	11	11	10	11	9	9
Chittenden	23	24	26	24	20	22	18	18	18	20	17	19
Essex	10	13	10	12	23	10	12	11	15	21	14	10
Franklin/Grand Isle	24	24	30	20	23	20	18	17	15	20	16	17
Lamoille	28	23	20	23	18	12	12	12	12	13	8	8
Orange	17	16	20	14	14	12	13	12	14	12	11	11
Orleans	14	18	18	13	13	14	19	14	13	11	11	13
Rutland	17	15	15	14	13	15	11	9	8	7	7	8
Washington	39	35	30	29	25	23	17	15	13	12	10	11
Windham	25	23	25	19	15	13	13	11	10	10	11	10
Windsor	20	20	17	15	13	11	10	10	9	8	10	9
Unknown	70	35	28	39	38	27	17	54	39	31	40	22

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont adults include residents age 18 and older.

Table 5-7
Unduplicated Number of Adults Hospitalized
for Behavioral Health Services
Vermont **Adults:** 1990 - 2001

People Served by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,463 ± 18	2,455 ± 18	2,385 ± 17	2,456 ± 18	2,590 ± 19	2,539 ± 19	2,682 ± 20	2,669 ± 19	2,635 ± 20	2,627 ± 19	2,864 ± 21	2,920 ± 21
VT General Hospitals	1,617 ± 12	1,546 ± 11	1,567 ± 11	1,554 ± 11	1,617 ± 12	1,538 ± 12	1,755 ± 13	1,748 ± 14	1,704 ± 12	1,799 ± 13	1,967 ± 15	1,910 ± 14
Vermont State Hospital	411	428	348	322	342	330	286	311	265	261	226	263
Brattleboro Retreat	147	161	175	198	225	319	350	405	363	366	463	531
VA Hospital - WRJ	171 ± 2	174 ± 2	164 ± 2	187 ± 2	192 ± 3	200 ± 3	182 ± 3	146 ± 2	141 ± 2	147 ± 2	169 ± 2	157 ± 2
New Hampshire Hospitals	350 ± 3	388 ± 3	341 ± 3	416 ± 4	467 ± 4	456 ± 4	396 ± 4	305 ± 3	324 ± 3	295 ± 3	299 ± 3	325 ± 3
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People Served by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,463 ± 18	2,455 ± 18	2,385 ± 17	2,456 ± 18	2,590 ± 19	2,539 ± 19	2,682 ± 20	2,669 ± 19	2,635 ± 20	2,627 ± 19	2,864 ± 21	2,920 ± 21
Addison	84 ± 1	82 ± 1	86 ± 1	110 ± 1	100 ± 1	105 ± 1	107 ± 1	121 ± 2	109 ± 1	123 ± 1	116 ± 1	129 ± 1
Bennington	53 ± 0.8	55 ± 0.8	41 ± 0.7	44 ± 0.7	49 ± 0.8	67 ± 1	56 ± 0.9	146 ± 2	135 ± 2	131 ± 1	149 ± 2	153 ± 2
Caledonia	121 ± 1	121 ± 1	117 ± 1	128 ± 1	121 ± 1	128 ± 1	111 ± 1	104 ± 1	97 ± 1	89 ± 1	100 ± 1	106 ± 1
Chittenden	575 ± 5	608 ± 5	530 ± 4	518 ± 4	563 ± 5	502 ± 4	524 ± 4	557 ± 5	527 ± 4	504 ± 4	573 ± 5	565 ± 5
Essex	21 ± 0.5	26 ± 0.5	25 ± 0.5	30 ± 0.6	24 ± 0.5	26 ± 0.6	33 ± 0.7	28 ± 1	30 ± 1	29 ± 1	21 ± 0.5	29 ± 1
Franklin/Grand Isle	122 ± 1	127 ± 1	139 ± 2	130 ± 2	143 ± 2	113 ± 1	145 ± 2	139 ± 2	121 ± 2	118 ± 1	146 ± 2	166 ± 2
Lamoille	81 ± 1	92 ± 1	75 ± 1	74 ± 1	66 ± 0.9	65 ± 0.9	67 ± 0.9	62 ± 1	76 ± 1	79 ± 1	107 ± 1	101 ± 1
Orange	117 ± 1	127 ± 1	110 ± 1	111 ± 1	111 ± 1	121 ± 1	120 ± 1	112 ± 1	109 ± 1	109 ± 1	113 ± 1	125 ± 1
Orleans	118 ± 1	110 ± 1	103 ± 1	123 ± 1	114 ± 1	105 ± 1	107 ± 1	114 ± 1	99 ± 1	127 ± 1	101 ± 1	104 ± 1
Rutland	296 ± 3	284 ± 3	287 ± 3	258 ± 2	285 ± 3	296 ± 3	284 ± 3	298 ± 3	386 ± 3	393 ± 3	487 ± 4	463 ± 4
Washington	346 ± 3	293 ± 3	324 ± 3	283 ± 3	298 ± 3	290 ± 3	321 ± 3	361 ± 4	312 ± 3	303 ± 3	312 ± 3	331 ± 3
Windham	185 ± 2	183 ± 2	204 ± 2	222 ± 2	262 ± 2	280 ± 3	340 ± 3	368 ± 3	377 ± 4	332 ± 3	336 ± 3	344 ± 3
Windsor	311 ± 3	299 ± 3	292 ± 3	345 ± 3	350 ± 3	360 ± 3	364 ± 3	313 ± 3	323 ± 3	328 ± 3	358 ± 3	366 ± 3
Unknown	16 ± 0.4	9 ± 0.3	3 ± 0.2	12 ± 0.3	16 ± 0.4	18 ± 0.5	16 ± 0.4	13 ± 0.3	24 ± 0.5	67 ± 1	18 ± 0.4	33 ± 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Vermont adults include residents age 18 and older.

Table 5-8
Unduplicated Number of Adults Hospitalized Per 100,000 Population
for Behavioral Health Services
Vermont **Adults:** 1990 - 2001

People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	588 ± 4	580 ± 4	558 ± 4	566 ± 4	589 ± 4.3	571 ± 4	596 ± 4	592 ± 4	581 ± 4	575 ± 4	621 ± 5	635 ± 5
VT General Hospitals	386 ± 3	365 ± 3	367 ± 3	358 ± 3	368 ± 3	346 ± 3	390 ± 2.9	388 ± 3	376 ± 3	393 ± 3	426 ± 3	415 ± 3
Vermont State Hospital	98	101	81	74	78	74	64	69	58	57	49	57
Brattleboro Retreat	35	38	41	46	51	72	78	90	80	80	100	115
VA Hospital - WRJ	41 ± 1	41 ± 1	38 ± 1	43 ± 1	44 ± 1	45 ± 0.7	40 ± 0.6	32 ± 0.4	31 ± 0.4	32 ± 0.4	37 ± 0.4	34 ± 0.4
New Hampshire Hospitals	83 ± 1	92 ± 1	80 ± 1	96 ± 1	106 ± 1	103 ± 0.9	88 ± 0.8	68 ± 0.7	71 ± 0.7	65 ± 1	65 ± 1	71 ± 1
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	588 ± 4	580 ± 4	558 ± 4	566 ± 4	589 ± 4.3	571 ± 4	596 ± 4	592 ± 4	581 ± 4	575 ± 4	621 ± 5	635 ± 5
Addison	346 ± 5	335 ± 5	347 ± 5	437 ± 5	392 ± 5	406 ± 5	409 ± 5	459 ± 8	411 ± 4	458 ± 4	427 ± 5	475 ± 4
Bennington	198 ± 3	205 ± 3	152 ± 3	161 ± 3	178 ± 2.9	242 ± 4	201 ± 3	523 ± 7	482 ± 7	465 ± 4	527 ± 6	548 ± 7
Caledonia	598 ± 7	597 ± 7	572 ± 7	611 ± 7	570 ± 7	596 ± 7	515 ± 6	480 ± 5	445 ± 5	406 ± 5	452 ± 5	488 ± 5
Chittenden	570 ± 5	597 ± 5	515 ± 4	495 ± 4	531 ± 4	467 ± 4	482 ± 4	510 ± 5	479 ± 4	455 ± 4	511 ± 4	497 ± 4
Essex	447 ± 10	554 ± 11	531 ± 11	632 ± 12	503 ± 11	543 ± 12	687 ± 13	584 ± 21	627 ± 21	607 ± 21	438 ± 10	601 ± 21
Franklin/Grand Isle	379 ± 4	387 ± 4	418 ± 5	381 ± 4	412 ± 5	321 ± 4	402 ± 4	383 ± 6	329 ± 5	315 ± 3	385 ± 4	436 ± 5
Lamoille	555 ± 8	617 ± 8	494 ± 7	476 ± 6	415 ± 6	401 ± 6	405 ± 6	369 ± 6	446 ± 6	458 ± 6	611 ± 8	577 ± 6
Orange	617 ± 7	663 ± 8	572 ± 7	568 ± 7	560 ± 7	598 ± 7	586 ± 7	547 ± 5	529 ± 5	526 ± 5	540 ± 6	600 ± 5
Orleans	683 ± 8	633 ± 8	585 ± 7	679 ± 8	619 ± 8	566 ± 7	568 ± 7	599 ± 5	515 ± 5	651 ± 5	516 ± 7	545 ± 5
Rutland	628 ± 6	602 ± 5	606 ± 5	541 ± 5	592 ± 5	612 ± 6	584 ± 5	616 ± 6	798 ± 6	811 ± 6	1002 ± 8	958 ± 8
Washington	844 ± 8	710 ± 6	780 ± 7	670 ± 6	699 ± 7	672 ± 6	738 ± 7	829 ± 9	713 ± 7	688 ± 7	703 ± 7	755 ± 7
Windham	598 ± 6	587 ± 6	649 ± 6	696 ± 7	809 ± 8	856 ± 8	1,031 ± 9	1112 ± 9	1133 ± 12	989 ± 9	995 ± 9	1030 ± 9
Windsor	766 ± 7	730 ± 7	707 ± 6	823 ± 8	826 ± 7	841 ± 8	843 ± 8	725 ± 7	744 ± 7	752 ± 7	813 ± 7	838 ± 7
Unknown	4 ± 0.1	2 ± 0.1	1 ± 0.0	3 ± 0.1	4 ± 0.1	4 ± 4	4 ± 0.1	3 ± 0.1	5 ± 0.1	15 ± 0.2	4 ± 0.1	7 ± 0.2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Vermont adults include residents age 18 and older.

APPENDIX A

Demographic Characteristics

Table A-1
Gender of People Hospitalized
for Behavioral Health Care
Vermont Residents: 1990 - 2001

People Served by Gender

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20	3,151 ± 22	3,193 ± 22
Male	1,294 ± 13	1,266 ± 13	1,190 ± 12	1,266 ± 13	1,312 ± 13	1,300 ± 13	1,411 ± 14	1,399 ± 14	1,449 ± 14	1,433 ± 14	1,577 ± 16	1,559 ± 15
Female	1,303 ± 12	1,304 ± 13	1,316 ± 13	1,352 ± 13	1,464 ± 14	1,444 ± 14	1,508 ± 15	1,477 ± 14	1,407 ± 14	1,478 ± 14	1,573 ± 15	1,634 ± 16

People Served per 100,000 Population by Gender

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	461 ± 3	454 ± 3	439 ± 3	452 ± 3	474 ± 3	464 ± 3	489 ± 3	481 ± 3	476 ± 3	482 ± 3	518 ± 4	521 ± 4
Male	470 ± 5	456 ± 5	426 ± 4	448 ± 4	461 ± 5	452 ± 5	487 ± 5	482 ± 5	499 ± 5	491 ± 5	529 ± 5	520 ± 5
Female	453 ± 4	451 ± 4	453 ± 4	461 ± 4	496 ± 5	485 ± 5	505 ± 5	494 ± 5	468 ± 5	490 ± 5	507 ± 5	523 ± 5

People Served by Gender and Hospital Type

Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20	3,151 ± 22	3,193 ± 22
Total Male	1,294 ± 13	1,266 ± 13	1,190 ± 12	1,266 ± 13	1,312 ± 13	1,300 ± 13	1,411 ± 14	1,399 ± 14	1,449 ± 14	1,433 ± 14	1,577 ± 16	1,559 ± 15
VT General Hospitals	715 ± 7	697 ± 7	671 ± 7	667 ± 7	678 ± 7	635 ± 7	756 ± 8	770 ± 8	787 ± 9	795 ± 9	914 ± 10	827 ± 9
Vermont State Hospital	271	258	211	208	217	197	179	208	198	189	163	173
Brattleboro Retreat	111	97	111	136	142	210	246	273	253	272	362	391
VA Hospital - WRJ	163 ± 2	167 ± 2	160 ± 2	177 ± 2	188 ± 3	193 ± 3	174 ± 3	137 ± 2	133 ± 2	139 ± 2	157 ± 2	146 ± 2
New Hampshire Hospitals	145 ± 2	160 ± 2	143 ± 2	183 ± 2	214 ± 3	215 ± 3	196 ± 2	139 ± 2	172 ± 2	163 ± 2	130 ± 2	143 ± 2
Other Out-of-State Hospital	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Female	1,303 ± 12	1,304 ± 13	1,316 ± 13	1,352 ± 13	1,464 ± 14	1,444 ± 14	1,508 ± 15	1,477 ± 14	1,407 ± 14	1,478 ± 14	1,573 ± 15	1,634 ± 16
VT General Hospitals	956 ± 9	900 ± 9	938 ± 9	921 ± 9	974 ± 10	933 ± 9	1,025 ± 28	1,005 ± 10	931 ± 10	1,021 ± 10	1,067 ± 11	1,104 ± 11
Vermont State Hospital	142	169	138	115	127	133	110	106	72	76	66	94
Brattleboro Retreat	93	115	104	131	154	211	240	263	232	288	330	352
VA Hospital - WRJ	8 ± 0.3	7 ± 0.3	4 ± 0.2	10 ± 0.3	4 ± 0.2	7 ± 0.3	8 ± <.1	9 ± ##	8 ± ##	8 ± ##	12 ± ##	11 ± ##
New Hampshire Hospitals	229 ± 3	250 ± 3	243 ± 3	311 ± 4	344 ± 4	332 ± 4	284 ± 3	235 ± 3	223 ± 3	216 ± 3	217 ± 3	214 ± 3
Other Out-of-State Hospital	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table A-2
Age of People Hospitalized
for Behavioral Health Care
Vermont Residents: 1990 - 2001

People Served by Age

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20	3,151 ± 22	3,193 ± 22
0-12	25 ± 0.7	20 ± 0.6	15 ± 0.4	16 ± 0.6	27 ± 0.8	22 ± 0.9	24 ± 0.8	38 ± 1	46 ± 1	58 ± 2	64 ± 2	97 ± 3
13-20	215 ± 5	198 ± 4	211 ± 5	242 ± 5	249 ± 5	319 ± 6	341 ± 7	295 ± 6	286 ± 5	352 ± 10	379 ± 11	409 ± 11
21-35	784 ± 11	817 ± 12	736 ± 11	814 ± 12	789 ± 11	757 ± 11	815 ± 12	777 ± 11	794 ± 11	728 ± 14	773 ± 15	851 ± 17
36-50	792 ± 11	764 ± 11	773 ± 11	785 ± 11	964 ± 14	898 ± 13	964 ± 14	998 ± 14	1,013 ± 14	1,100 ± 22	1,180 ± 23	1,165 ± 23
51-65	363 ± 5	361 ± 5	329 ± 5	322 ± 5	323 ± 5	320 ± 5	331 ± 5	346 ± 5	423 ± 5	398 ± 8	468 ± 10	441 ± 9
66& Older	417 ± 5	411 ± 5	443 ± 5	440 ± 5	423 ± 5	428 ± 5	444 ± 5	431 ± 5	327 ± 4	378 ± 6	408 ± 6	356 ± 5

People Served Per 100,000 Population by Age

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	461 ± 3	454 ± 3	439 ± 3	452 ± 3	474 ± 3	464 ± 3	489 ± 3	481 ± 3	476 ± 3	482 ± 3	518 ± 4	521 ± 4
0-12	24 ± 0.7	19 ± 0.5	14 ± 0.4	15 ± 0.6	26 ± 0.7	21 ± 0.8	23 ± 0.7	37 ± 1	47 ± 1	61 ± 2	63 ± 2	88 ± 3
13-20	326 ± 7	311 ± 7	337 ± 7	380 ± 8	392 ± 8	493 ± 10	517 ± 10	443 ± 9	424 ± 7	516 ± 15	530 ± 15	609 ± 16
21-35	561 ± 8	586 ± 8	530 ± 8	592 ± 8	597 ± 9	581 ± 8	637 ± 9	623 ± 9	644 ± 9	596 ± 11	674 ± 13	675 ± 13
36-50	661 ± 9	615 ± 9	601 ± 9	591 ± 8	693 ± 10	627 ± 9	654 ± 9	676 ± 9	675 ± 9	727 ± 15	782 ± 15	828 ± 16
51-65	525 ± 7	522 ± 8	471 ± 7	449 ± 7	438 ± 6	424 ± 6	432 ± 6	432 ± 6	504 ± 6	455 ± 9	486 ± 10	456 ± 9
66& Older	675 ± 8	652 ± 8	690 ± 8	675 ± 8	638 ± 7	646 ± 8	661 ± 7	633 ± 7	477 ± 6	548 ± 9	557 ± 8	497 ± 7

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.

Table A-2 (cont'd)
Age of People Hospitalized
for Behavioral Health Care
Vermont Residents: 1990 - 2001

People Served per by Age and Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20	3,151 ± 22	3,193 ± 22
Total 0-12	25 ± 1	20 ± 1	15 ± 0	16 ± 1	27 ± 1	22 ± 1	24 ± 1	38 ± 1	46 ± 1	58 ± 2	64 ± 2	97 ± 3
VT General Hospitals	7 ± 0.3	8 ± 0.3	7 ± 0.3	3 ± 0.2	9 ± 0.3	5 ± 0.3	6 ± 0.3	3 ± 0.2	3 ± 0.2	3 ± 0.2	2 ± 0.2	8 ± 0.2
Vermont State Hospital	0	0	0	0	0	0	0	0	0	0	0	0
Brattleboro Retreat	16	12	2	3	4	10	7	17	20	36	57	59
VA Hospital - WRJ	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
New Hampshire Hospitals	2 ± <.1	0 ± <	6 ± <.1	10 ± <.1	15 ± <.1	7 ± <.1	13 ± <	19 ± 1	18 ± 0.5	20 ± 1.0	5 ± 0.3	10 ± 0.5
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 13-20	215 ± 5	198 ± 4	211 ± 5	242 ± 5	249 ± 5	319 ± 6	341 ± 7	295 ± 6	286 ± 5	352 ± 10	379 ± 11	409 ± 11
VT General Hospitals	120 ± 3	108 ± 2	103 ± 2	86 ± 2	82 ± 2	98 ± 2	96 ± 3	98 ± 2	78 ± 2	91 ± 4	91 ± 4	149 ± 5
Vermont State Hospital	12	16	7	10	13	15	12	22	21	17	17	20
Brattleboro Retreat	55	54	55	82	84	131	165	145	110	188	215	192
VA Hospital - WRJ	0 ± 0.5	0 ± <.1	0 ± <.1	0 ± <.1	0 ± <.1	0 ± <.1	0 ± <	0 ±	0 ±	0 ± 0	0 ± 0	1 ± 0
New Hampshire Hospitals	39 ± <.1	38 ± <.1	59 ± <.1	87 ± <.1	95 ± <.1	110 ± <.1	96 ± <	68 ± 2	67 ± 2	74 ± 2	66 ± 2	51 ± 1
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 21-35	784 ± 11	817 ± 12	736 ± 11	814 ± 12	789 ± 11	757 ± 11	815 ± 12	777 ± 11	794 ± 11	728 ± 14	773 ± 15	851 ± 17
VT General Hospitals	534 ± 8	547 ± 8	502 ± 7	544 ± 8	512 ± 7	488 ± 7	580 ± 8	551 ± 7	546 ± 7	515 ± 10	546 ± 11	557 ± 11
Vermont State Hospital	167	156	137	125	132	123	104	130	103	78	74	79
Brattleboro Retreat	57	60	58	77	63	94	84	93	107	115	142	193
VA Hospital - WRJ	18 ± <.1	11 ± <.1	16 ± <.1	26 ± <.1	13 ± <.1	14 ± <.1	16 ± <	16 ± 0.5	11 ± 0.4	6 ± 0.3	8 ± 0.3	6 ± 0.3
New Hampshire Hospitals	106 ± 0.5	131 ± 0.3	125 ± 0.5	152 ± 0.7	160 ± 0.5	141 ± 0.5	133 ± 0.5	88 ± 2	91 ± 2	84 ± 2	65 ± 1	73 ± 2
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table A-2 (cont'd)
Age of People Hospitalized
for Behavioral Health Care
Vermont Residents: 1990 - 2001

People Served per by Age and Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total 36-50	792 ± 11	764 ± 11	773 ± 11	785 ± 11	964 ± 14	898 ± 13	964 ± 14	998 ± 14	1,013 ± 14	1,100 ± 22	1,180 ± 23	1,165 ± 23
VT General Hospitals	466 ± 7	440 ± 6	466 ± 7	447 ± 7	575 ± 8	507 ± 7	585 ± 8	627 ± 8	616 ± 9	721 ± 14	794 ± 16	740 ± 15
Vermont State Hospital	135	155	123	117	127	135	117	118	99	105	84	107
Brattleboro Retreat	47	60	67	73	93	121	126	156	152	148	182	220
VA Hospital - WRJ	90 ± <.1	81 ± <.1	72 ± <.1	82 ± <.1	106 ± <.1	103 ± <.1	102 ± <.1	77 ± 2	76 ± 2	75 ± 2	63 ± 2	57 ± 1
New Hampshire Hospitals	134 ± 2	121 ± 2	112 ± 2	143 ± 2	166 ± 2	166 ± 3	144 ± 2	109 ± 2	139 ± 2	119 ± 3	127 ± 3	136 ± 3
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 51-65	363 ± 5	361 ± 5	329 ± 5	322 ± 5	323 ± 5	320 ± 5	331 ± 5	346 ± 5	423 ± 5	398 ± 8	468 ± 10	441 ± 9
VT General Hospitals	245 ± 4	230 ± 3	221 ± 3	210 ± 3	194 ± 3	195 ± 3	216 ± 3	223 ± 4	219 ± 3	253 ± 5	299 ± 6	280 ± 6
Vermont State Hospital	61	65	49	45	48	41	44	36	40	51	42	47
Brattleboro Retreat	13	12	13	10	16	25	27	39	100	34	51	43
VA Hospital - WRJ	32 ± <.1	36 ± <.1	36 ± <.1	37 ± <.1	44 ± <.1	37 ± <.1	33 ± <.1	26 ± 0.6	34 ± 1	43 ± 1	64 ± 2	52 ± 1
New Hampshire Hospitals	44 ± 0.9	53 ± 1	35 ± 0.9	46 ± 1	53 ± 1	48 ± 0.9	40 ± 0.9	40 ± 1	40 ± 1	51 ± 1	45 ± 1	48 ± 1
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 66& Older	417 ± 5	411 ± 5	443 ± 5	440 ± 5	423 ± 5	428 ± 5	444 ± 5	431 ± 5	327 ± 4	378 ± 6	408 ± 6	356 ± 5
VT General Hospitals	300 ± 4	263 ± 3	311 ± 4	299 ± 4	280 ± 3	275 ± 3	299 ± 3	275 ± 4	264 ± 3	275 ± 3	299 ± 4	245 ± 4
Vermont State Hospital	38	36	33	26	24	16	12	16	7	15	12	14
Brattleboro Retreat	16	14	20	22	36	40	77	86	0	44	45	33
VA Hospital - WRJ	31 ± <.1	46 ± <.1	40 ± <.1	41 ± <.1	29 ± <.1	46 ± <.1	30 ± <.1	28 ± 0.6	20 ± 0.5	23 ± 1	34 ± 1	41 ± 1
New Hampshire Hospitals	48 ± 0.8	66 ± 1	49 ± 0.9	56 ± 0.9	68 ± 0.7	74 ± 1	53 ± 0.7	50 ± 1	40 ± 1	32 ± 1	40 ± 1	40 ± 1
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

APPENDIX B

Inpatient Behavioral Health Care Utilization by Hospital

Table B-1
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1990

Hospital	Episodes of Hospitalization	Patient Days	Average Length of Stay	Unduplicated Count of		
				People Served	People Served in Other Facilities	
					Number	Percent
Total	3,523	82,315	23	2,598 ± 18		
Vermont State Hospital	488	41,265	85	413	128 ± 7	31%
Brattleboro Retreat	226	7,165	32	204	42 ± 4	21%
VA - White River Junction	218	3,442	16	171 ± 2	16 ± 4	9%
Vermont General Hospitals	2,060	22,835	11	1,672 ± 12	215 ± 14	13%
Fletcher Allen	801	10,687	13	652 ± 5	132 ± 10	20%
Central Vermont Medical Center	297	2,964	10	248 ± 2	58 ± 5	23%
Rutland	290	3,391	12	236 ± 2	29 ± 3	12%
Southwest Vermont	155	1,584	10	138 ± 2	19 ± 2	14%
Springfield	40	211	5	39 ± 0.7	9 ± 1	23%
Northeast VT	133	1,348	10	127 ± 2	26 ± 4	21%
Northwestern	14	95	7	14 ± 0.4	4 ± 0.2	29%
Rockingham	108	1,131	10	90 ± 1.2	67 ± 4	75%
North Country	66	287	4	57 ± 0.8	15 ± 1	26%
Mt. Ascutney	50	560	11	37 ± 0.7	10 ± 0.7	27%
Brattleboro Memorial	24	210	9	23 ± 0.5	7 ± 0.5	30%
Copley	42	236	6	41 ± 0.7	11 ± 2	28%
Porter	9	23	3	9 ± 0.3	2 ± 0.2	22%
Gifford	18	53	3	16 ± 0.4	3 ± 0.2	19%
Grace Cottage	13	55	4	11 ± 0.3	5 ± 0.2	45%
New Hampshire General Hospitals	494	7,106	14	374 ± 3	82 ± 7	22%
Mary Hitchcock	369	5,716	15	275 ± 3	78 ± 5	29%
Cheshire Hospital	48	595	12	39 ± 1	10 ± 1.3	25%
Valley Regional	3	7	2	3 ± 0.2	1 ± <.1	33%
Weeks	7	55	8	6 ± 0.3	1 ± <.1	17%
Monadnock Community	0	0	--	0	0	--
Other New Hampshire Hospitals	67	733	11	62 ± 1	0	0%
Massachusetts Hospitals	37	502	14		Unknown	
VA - Northhampton	0	0	--			
Franklin County Medical Center	13	183	14			
North Adams	8	63	8			
Baystate Medical Center	0	0	--			
Other Massachusetts Hospitals	16	256	16			
New York Hospitals	Unknown	Unknown	--		Unknown	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. New York hospital data not available prior to 1993.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Summary data for Vermont general hospitals and New Hampshire general hospitals describe the categories as a whole. The "total served" by each category is less than the sum of the individual facilities because some patients are served by more than one facility in the same category. The total number of people "also served in other facilities" is less than the sum of the numbers for the individual facilities for the same reason.

Other New Hampshire Hospitals include Alice Peck, Catholic, Androscoggin, Cottage, Elliot, Littleton, Upper CT Valley, Lakes Region, St. Josephs, Frisbie, Nashua Memorial, Parkland, and N. Conway Memorial. Other Massachusetts Hospitals include Berkshire, VA-Boston, Children's, NE Deaconess, VA-Brockton/West Roxbury, Colley-Dickenson, Mass General, Beth Israel, Lahey Clinic, Brigham and Women, NE Medical Center, U-Mass Medical Center, and other Mass hospitals. New York Hospitals include Albany, Samaritan, Leonard, Champlain Valley, Glens Falls, St Peters, United, Moses-Ludington, and other New York hospitals.

Table B-2
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1991

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>People Served</u>	<u>Unduplicated Count of People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	3,550	77,816	22	2,571 ± 18		
Vermont State Hospital	501	37,143	74	427	139 ± 8	33%
Brattleboro Retreat	242	6,288	26	212	44 ± 4	21%
VA - White River Junction	224	3,244	14	174 ± 2	24 ± 5	14%
Vermont General Hospitals	1,986	22,066	11	1,596 ± 11	205 ± 15	13%
Fletcher Allen	782	11,011	14	651 ± 5	127 ± 11	20%
Central Vermont Medical Center	286	2,969	10	228 ± 2	65 ± 5	29%
Rutland	308	3,141	10	242 ± 2	39 ± 5	16%
Southwest Vermont	168	1,481	9	145 ± 2	21 ± 3	15%
Springfield	135	1,424	11	115 ± 1	36 ± 3	31%
Northeast VT	111	977	9	109 ± 1.4	22 ± 3	20%
Northwestern	35	217	6	31 ± 0.6	7 ± 1	22%
North Country	48	204	4	44 ± 0.7	17 ± 1	38%
Mt. Ascutney	24	303	13	21 ± 0.5	6 ± 0.8	28%
Brattleboro Memorial	28	101	4	26 ± 0.6	5 ± 0.2	19%
Copley	31	125	4	30 ± 0.6	6 ± 0.7	20%
Porter	11	50	5	11 ± 0.3	4 ± 0.2	36%
Gifford	13	36	3	11 ± 0.3	2 ± 0.7	17%
Grace Cottage	6	27	5	6 ± 0.3	1 ± <.1	17%
New Hampshire General Hospitals	553	8,523	15	410 ± 3	88 ± 8	21%
Mary Hitchcock	453	7,549	17	325 ± 3	78 ± 7	24%
Cheshire Hospital	40	367	9	35 ± 0.8	12 ± 1	33%
Valley Regional	0	0	--	0	0	--
Weeks	4	14	4	4 ± 0.2	1 ± <.1	25%
Monadnock Community	0	0	--	0	0	--
Other New Hampshire	56	593	11	54 ± 0.9	0	
Massachusetts Hospitals	44	552	13		Unknown	
VA - Northhampton	0	0	--			
Franklin County Medical Center	15	233	16			
North Adams	13	136	10			
Baystate Medical Center	0	0	--			
Other Massachusetts Hospitals	16	183	11			
New York Hospitals	Unknown	Unknown	--		Unknown	

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Summary data for Vermont general hospitals and New Hampshire general hospitals describe the categories as a whole. The "total served" by each category is less than the sum of the individual facilities because some patients are served by more than one facility in the same category. The total number of people "also served in other facilities" is less than the sum of the numbers for the individual facilities for the same reason.

Other New Hampshire Hospitals include Alice Peck, Catholic, Androscoggin, Cottage, Elliot, Littleton, Upper CT Valley, Lakes Region, St. Josephs, Frisbie, Nashua Memorial, Parkland, and N. Conway Memorial. Other Massachusetts Hospitals include Berkshire, VA-Boston, Children's, NE Deaconess, VA-Brockton/West Roxbury, Colley-Dickenson, Mass General, Beth Israel, Lahey Clinic, Brigham and Women, NE Medical Center, U-Mass Medical Center, and other Mass hospitals. New York Hospitals include Albany, Samaritan, Leonard, Champlain Valley, Glens Falls, St Peters, United, Moses-Ludington, and other New York hospitals.

Table B-3
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1992

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	3,515	77,271	22	2,507 ± 17		
Vermont State Hospital	401	35,130	88	349	104 ± 7	30%
Brattleboro Retreat	256	5,538	22	215	57 ± 4	27%
VA - White River Junction	235	5,389	23	164 ± 2	28 ± 4	17%
Vermont General Hospitals	2,020	22,287	11	1,609 ± 12	179 ± 14	11%
Fletcher Allen	734	10,673	15	612 ± 5	116 ± 10	19%
Central Vermont Medical Center	304	2,861	9	248 ± 2	73 ± 5	30%
Rutland	325	3,009	9	269 ± 2	42 ± 4	16%
Southwest Vermont	168	1,804	11	138 ± 2	19 ± 3	14%
Springfield	175	1,681	10	136 ± 2	43 ± 3	32%
Northeast VT	118	956	8	108 ± 1	19 ± 3	18%
Northwestern	34	537	16	30 ± 0.6	4 ± 0.2	13%
North Country	47	179	4	47 ± 0.7	15 ± 1	31%
Mt. Ascutney	21	120	6	19 ± 0.5	3 ± 0.2	16%
Brattleboro Memorial	36	177	5	34 ± 0.7	3 ± 0.7	9%
Copley	28	154	6	26 ± 0.6	11 ± 0.4	42%
Porter	8	61	8	7 ± 0.3	3 ± 0.2	43%
Gifford	16	57	4	16 ± 0.4	3 ± 0.3	19%
Grace Cottage	6	18	3	6 ± 0.3	1 ± <.1	17%
New Hampshire General Hospitals	504	7,070	14	386 ± 3	70 ± 7	18%
Mary Hitchcock	425	5,812	14	318 ± 3	59 ± 6	19%
Cheshire Hospital	49	902	18	43 ± 0.9	11 ± 1	25%
Valley Regional	13	215	17	11 ± 0.4	4 ± 0.7	36%
Weeks	5	12	2	5 ± 0.2	0	0%
Monadnock Community	0	0	--	0	0	--
Other New Hampshire Hospitals	12	129	11	12 ± 0.3	0	0%
Massachusetts Hospitals	99	1,857	19		Unknown	
VA - Northhampton	31	825	27			
Franklin County Medical Center	28	395	14			
North Adams	9	65	7			
Baystate Medical Center	0	0	--			
Other Massachusetts Hospitals	31	572	18			
New York Hospitals	Unknown	Unknown	--		Unknown	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. New York hospital data not available prior to 1993.

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Summary data for Vermont general hospitals and New Hampshire general hospitals describe the categories as a whole. The "total served" by each category is less than the sum of the individual facilities because some patients are served by more than one facility in the same category. The total number of people "also served in other facilities" is less than the sum of the numbers for the individual facilities for the same reason.

Other New Hampshire Hospitals include Alice Peck, Catholic, Androscoggin, Cottage, Elliot, Littleton, Upper CT Valley, Lakes Region, St. Josephs, Frisbie, Nashua Memorial, Parkland, and N. Conway Memorial. Other Massachusetts Hospitals include Berkshire, VA-Boston, Children's, NE Deaconess, VA-Brockton/West Roxbury, Colley-Dickenson, Mass General, Beth Israel, Lahey Clinic, Brigham and Women, NE Medical Center, U-Mass Medical Center, and other Mass hospitals. New York Hospitals include Albany, Samaritan, Leonard, Champlain Valley, Glens Falls, St Peters, United, Moses-Ludington, and other New York hospitals.

Table B-4
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1993

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>People Served</u>	<u>Unduplicated Count of People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	3,846	73,957	19	2,620 ± 18		
Vermont State Hospital	382	31,602	83	323	114 ± 6	35%
Brattleboro Retreat	346	7,265	21	267	69 ± 5	26%
VA - White River Junction	241	3,474	14	187 ± 2	19 ± 4	10%
Vermont General Hospitals	2,069	21,291	10	1,589 ± 11	195 ± 15	12%
Fletcher Allen	801	10,880	14	645 ± 5	128 ± 10	20%
Central Vermont Medical Center	319	2,988	9	239 ± 2	58 ± 5	24%
Rutland	267	2,626	10	214 ± 2	24 ± 4	11%
Southwest Vermont	177	1,573	9	147 ± 2	25 ± 3	17%
Springfield	214	1,651	8	154 ± 2	44 ± 3	29%
Northeast VT	109	567	5	95 ± 1	17 ± 2	18%
Northwestern	29	221	8	23 ± 0.5	1 ± <.1	4%
North Country	65	265	4	57 ± 0.9	21 ± 2	36%
Mt. Ascutney	5	26	5	5 ± 0.2	2 ± 0.2	40%
Brattleboro Memorial	20	159	8	19 ± 0.5	5 ± 0.9	25%
Copley	26	111	4	23 ± 0.5	3 ± 0.2	13%
Porter	11	150	14	11 ± 0.3	2 ± 0.2	18%
Gifford	13	39	3	11 ± 0.3	4 ± 0.2	36%
Grace Cottage	13	35	3	12 ± 0.3	1 ± <.1	8%
New Hampshire General Hospitals	662	8,861	13	495 ± 4	95 ± 9	19%
Mary Hitchcock	502	6,367	13	370 ± 3	67 ± 8	18%
Cheshire Hospital	83	1,778	21	75 ± 1.5	22 ± 3	30%
Valley Regional	60	588	10	50 ± 0.8	29 ± 1	58%
Weeks	5	32	6	3 ± 0.2	0	0%
Monadnock Community	0	0	--	0	0	--
Other New Hampshire Hospitals	12	96	8	12 ± 0.3	0	0%
Massachusetts Hospitals	116	1,178	10		Unknown	
VA - Northhampton	34	359	11			
Franklin County Medical Center	17	144	8			
North Adams	25	162	6			
Baystate Medical Center	6	81	14			
Other Massachusetts Hospitals	34	432	13			
New York Hospitals	30	286	10		Unknown	

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Table B-5
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1994

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>People Served</u>	<u>Unduplicated Count of People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	4,114	71,162	17	2,776 ± 20		
Vermont State Hospital	405	27,778	69	344	100 ± 7	29%
Brattleboro Retreat	377	7,589	20	296	79 ± 5	27%
VA - White River Junction	260	3,792	15	192 ± 3	30 ± 6	16%
Vermont General Hospitals	2,231	20,962	9	1,652 ± 12	217 ± 16	13%
Fletcher Allen	880	10,376	12	683 ± 6	126 ± 11	18%
Central Vermont Medical Center	357	3,103	9	252 ± 2	64 ± 5	25%
Rutland	278	2,526	9	219 ± 2	32 ± 4	15%
Southwest Vermont	214	2,005	9	176 ± 2	35 ± 3	20%
Springfield	266	1,910	7	187 ± 2	61 ± 5	33%
Northeast VT	53	315	6	49 ± 0.8	12 ± 1	24%
Northwestern	27	163	6	26 ± 0.5	7 ± 0.3	27%
North Country	73	194	3	57 ± 0.9	20 ± 2	36%
Mt. Ascutney	7	23	3	7 ± 0.3	2 ± 0.2	29%
Brattleboro Memorial	29	170	6	26 ± 0.5	9 ± 0.3	35%
Copley	9	40	4	9 ± 0.3	2 ± 0.2	22%
Porter	10	53	5	10 ± 0.3	2 ± 0.2	20%
Gifford	14	48	3	13 ± 0.4	1 ± <.1	8%
Grace Cottage	14	36	3	12 ± 0.4	2 ± 0.6	16%
New Hampshire General Hospitals	703	8,489	12	558 ± 5	107 ± 10	19%
Mary Hitchcock	506	6,069	12	384 ± 3	77 ± 8	20%
Cheshire Hospital	104	1,607	15	100 ± 2	16 ± 3	16%
Valley Regional	71	629	9	56 ± 1.0	26 ± 2	46%
Weeks	5	18	4	5 ± 0.2	1 ± <.1	20%
Monadnock Community	5	75	15	5 ± 0.2	1 ± <.1	20%
Other New Hampshire Hospitals	12	91	8	17 ± 0.4	0	0%
Massachusetts Hospitals	103	2,183	21		Unknown	
VA - Northhampton	41	1,358	33			
Franklin County Medical Center	6	48	8			
North Adams	21	172	8			
Baystate Medical Center	4	50	13			
Other Massachusetts Hospitals	31	555	18			
New York Hospitals	35	369	11		Unknown	

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Table B-6
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1995

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	4,194	68,261	16	2,744 ± 19		
Vermont State Hospital	381	27,059	71	330	111 ± 7	34%
Brattleboro Retreat	519	9,735	19	421	122 ± 7	29%
VA - White River Junction	254	3,667	14	200 ± 3	29 ± 5	14%
Vermont General Hospitals	2,142	19,498	9	1,568 ± 12	240 ± 16	15%
Fletcher Allen	822	9,430	11	627 ± 5	119 ± 11	19%
Central Vermont Medical Center	305	3,231	11	236 ± 2	72 ± 5	30%
Rutland	302	2,681	9	227 ± 2	44 ± 5	19%
Southwest Vermont	214	1,417	7	166 ± 2	23 ± 4	14%
Springfield	312	2,050	7	210 ± 2	70 ± 6	33%
Northeast VT	37	151	4	34 ± 0.7	10 ± 0.9	29%
Northwestern	14	67	5	13 ± 0.4	2 ± 0.2	15%
North Country	55	144	3	50 ± 0.8	14 ± 0.8	28%
Mt. Ascutney	10	33	3	8 ± 0.3	3 ± 0.2	38%
Brattleboro Memorial	18	85	5	18 ± 0.5	8 ± 0.9	44%
Copley	22	106	5	20 ± 0.5	3 ± 0.2	15%
Porter	13	41	3	11 ± 0.3	4 ± 0.2	36%
Gifford	6	18	3	5 ± 0.2	2 ± 0.2	40%
Grace Cottage	12	44	4	12 ± 0.3	2 ± 0.2	17%
New Hampshire General Hospitals	730	6,047	8	546 ± 5	130 ± 10	24%
Mary Hitchcock	554	4,296	8	402 ± 4	110 ± 8	27%
Cheshire Hospital	105	1,304	12	102 ± 2	28 ± 4	28%
Valley Regional	40	229	6	32 ± 0.6	16 ± 0.4	50%
Weeks	3	10	3	2 ± 0.2	2 ± 0.2	100%
Monadnock Community	7	116	17	7 ± 0.3	0	0%
Other New Hampshire Hospitals	21	92	4	26 ± 0.5	0	0%
Massachusetts Hospitals	103	1,600	16		Unknown	
VA - Northhampton	35	957	27			
Franklin County Medical Center	9	69	8			
North Adams	17	146	9			
Baystate Medical Center	4	40	10			
Other Massachusetts Hospitals	38	388	10			
New York Hospitals	65	655	10		Unknown	

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Table B-7
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1996

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	4,528	64,919	14	2,919 ± 20	--	
Vermont State Hospital	354	23,452	66	289	101 ± 6	35%
Brattleboro Retreat	639	12,373	19	486	127 ± 8	26%
VA - White River Junction	236	3,086	13	182 ± 3	20 ± 4	11%
Vermont General Hospitals	2,514	20,034	8	1,781 ± 13	236 ± 16	13%
Fletcher Allen	886	8,803	10	686 ± 6	135 ± 12	20%
Central Vermont Medical Center	488	4,601	9	315 ± 3	68 ± 6	22%
Rutland	307	2,404	8	231 ± 2	45 ± 5	19%
Southwest Vermont	246	1,212	5	201 ± 2	37 ± 4	19%
Springfield	373	2,029	5	259 ± 3	83 ± 7	32%
Northeast VT	37	109	3	35 ± 0.6	8 ± 1	22%
Northwestern	38	358	9	32 ± 0.6	8 ± 1	24%
North Country	46	124	3	42 ± 0.8	13 ± 2	30%
Mt. Ascutney	8	40	5	7 ± 0.3	4 ± 0.2	57%
Brattleboro Memorial	33	164	5	29 ± 0.6	8 ± 0.3	28%
Copley	31	101	3	24 ± 0.5	7 ± 1.0	28%
Porter	10	56	6	10 ± 0.3	4 ± 0.4	40%
Gifford	2	5	3	2 ± 0.1	1 ± 0.1	50%
Grace Cottage	9	28	3	8 ± 0.3	2 ± 0.1	25%
New Hampshire General Hospitals	679	4,968	7	480 ± 4	116 ± 9	24%
Mary Hitchcock	530	3,490	7	358 ± 3	102 ± 8	28%
Cheshire Hospital	104	1,152	11	94 ± 2	21 ± 3	22%
Valley Regional	23	137	6	18 ± 0.4	10 ± 0.3	56%
Weeks	5	11	2	4 ± 0.2	0	0%
Monadnock Community	6	113	19	6 ± 0.3	1 ± 0.1	17%
Other New Hampshire Hospitals	11	65	6	17 ± 0.4	0	0%
Massachusetts Hospitals	87	869	10	Unknown		
VA - Northhampton	18	175	10			
Franklin County Medical Center	15	163	11			
North Adams	12	101	8			
Baystate Medical Center	5	92	18			
Other Massachusetts Hospitals	37	338	9			
New York Hospitals	19	137	7	Unknown		

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. New York hospital data not available prior to 1993.

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Summary data for Vermont general hospitals and New Hampshire general hospitals describe the categories as a whole. The "total served" by each category is less than the sum of the individual facilities because some patients are served by more than one facility in the same category. The total number of people "also served in other facilities" is less than the sum of the numbers for the individual facilities for the same reason.

Other New Hampshire Hospitals include Alice Peck, Catholic, Androscoggin, Cottage, Elliot, Littleton, Upper CT Valley, Lakes Region, St. Josephs, Frisbie, Nashua Memorial, Parkland, and N. Conway Memorial. Other Massachusetts Hospitals include Berkshire, VA-Boston, Children's, NE Deaconess, VA-Brockton/West Roxbury, Colley-Dickenson, Mass General, Beth Israel, Lahey Clinic, Brigham and Women, NE Medical Center, U-Mass Medical Center, and other Mass hospitals. New York Hospitals include Albany, Samaritan, Leonard, Champlain Valley, Glens Falls, St Peters, United, Moses-Ludington, and other New York hospitals.

Table B-8
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1997

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	4,458	61,506	14	2,876 ± 20	--	
Vermont State Hospital	380	23,827	63	314	129 ± 7	41%
Brattleboro Retreat	678	11,709	17	536	130 ± 7	24%
VA - White River Junction	236	1,850	8	146 ± 2	25 ± 3	17%
Vermont General Hospitals	2,576	19,781	8	1,775 ± 13	260 ± 14	15%
Fletcher Allen	853	8,355	10	666 ± 6	142 ± 12	21%
Central Vermont Medical Center	640	5,630	9	429 ± 4	97 ± 8	23%
Rutland	329	1,955	6	250 ± 2	48 ± 6	19%
Southwest Vermont	114	525	5	96 ± 1	21 ± 2	22%
Springfield	477	2,704	6	292 ± 3	104 ± 7	36%
Northeast VT	11	32	3	9 ± 0.3	4 ± 0.2	44%
Northwestern	21	91	4	20 ± 0.4	6 ± 0.5	30%
North Country	46	129	3	40 ± 0.6	12 ± 1	30%
Mt. Ascutney	4	9	2	4 ± 0.2	1 ± 0.1	25%
Brattleboro Memorial	26	129	5	25 ± 0.5	13 ± 0.3	52%
Copley	18	71	4	17 ± 0.4	5 ± 0.2	29%
Porter	12	69	6	10 ± 0.3	1 ± 0.1	10%
Gifford	10	39	4	9 ± 0.3	2 ± 0.4	22%
Grace Cottage	15	43	3	14 ± 0.4	2 ± 0.1	14%
New Hampshire General Hospitals	482	2,990	6	374 ± 4	83 ± 6	22%
Mary Hitchcock	371	2,173	6	272 ± 3	67 ± 5	25%
Cheshire Hospital	76	652	9	75 ± 2	18 ± 3	24%
Valley Regional	13	60	5	11 ± 0.3	4 ± 0.2	36%
Weeks	1	2	2	1 ± 0.1	0	0%
Monadnock Community	4	45	11	4 ± 0.2	1 ± 0.1	25%
Other New Hampshire Hospitals	11	44	4	10 ± 0.3	4 ± 0.5	40%
Massachusetts Hospitals	86	1,133	13		Unknown	
VA - Northhampton	21	464	22			
Franklin County Medical Center	7	53	8			
North Adams	20	107	5			
Baystate Medical Center	2	10	5			
Other Massachusetts Hospitals	36	499	14			
New York Hospitals	20	216	11		Unknown	

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Summary data for Vermont general hospitals and New Hampshire general hospitals describe the categories as a whole. The 'total served' by each category is less than the sum of the individual facilities because some patients are served by more than one facility in the same category. The total number of people "also served in other facilities" is less than the sum of the numbers for the individual facilities for the same reason.

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Table B-9
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1998

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	4,382	54,548	12	2,855 ± 20	--	
Vermont State Hospital	309	19,961	65	270	98 ± 6	36%
Brattleboro Retreat	761	10,635	14	485	134 ± 8	28%
VA - White River Junction	236	1,484	6	141 ± 2	20 ± 3	14%
Vermont General Hospitals	2,451	18,114	7	1,717 ± 12	230 ± 16	13%
Fletcher Allen	766	7,699	10	588 ± 5	122 ± 11	21%
Central Vermont Medical Center	440	3,726	8	340 ± 4	68 ± 7	20%
Rutland	534	2,669	5	401 ± 3	67 ± 8	17%
Southwest Vermont	37	140	4	35 ± 1	4 ± 0.2	11%
Springfield	536	3,354	6	324 ± 4	106 ± 7	33%
Northeast VT	13	32	2	12 ± 0.3	3 ± 0.2	25%
Northwestern	9	32	4	8 ± 0.3	5 ± 1	63%
North Country	35	133	4	29 ± 0.5	6 ± 1	21%
Mt. Ascutney	2	5	3	1 ± 0.1	1 ± 0.1	100%
Brattleboro Memorial	19	85	4	19 ± 0.4	4 ± 0.4	21%
Copley	32	116	4	29 ± 0.5	7 ± 1	24%
Porter	13	70	5	13 ± 0.3	5 ± 0.2	38%
Gifford	3	17	6	3 ± 0.2	1 ± 0.1	33%
Grace Cottage	12	36	3	11 ± 0.3	5 ± 0.2	45%
New Hampshire General Hospitals	500	2,821	6	395 ± 3	85 ± 6	22%
Mary Hitchcock	379	1,963	5	292 ± 3	69 ± 7	24%
Cheshire Hospital	96	668	7	82 ± 2	15 ± 2	18%
Valley Regional	8	23	3	8 ± 0.3	2 ± 0.1	25%
Weeks	1	6	6	1 ± 0.1	1 ± 0.1	100%
Monadnock Community	7	87	12	6 ± 0.2	2 ± 0.1	33%
Other New Hampshire Hospitals	9	74	8	9 ± 0.3	3 ± 0.2	33%
Massachusetts Hospitals	98	1,160	12		Unknown	
VA - Northhampton	20	335	17			
Franklin County Medical Center	1	11	11			
North Adams	29	327	11			
Baystate Medical Center	5	175	35			
Other Massachusetts Hospitals	43	312	7			
New York Hospitals	27	373	14		Unknown	

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Summary data for Vermont general hospitals and New Hampshire general hospitals describe the categories as a whole. The 'total served' by each category is less than the sum of the individual facilities because some patients are served by more than one facility in the same category. The total number of people "also served in other facilities" is less than the sum of the numbers for the individual facilities for the same reason.

Other New Hampshire Hospitals include Alice Peck, Catholic, Androscoggin, Cottage, Elliot, Littleton, Upper CT Valley, Lakes Region, St. Josephs, Frisbie, Nashua Memorial, Parkland, and N. Conway Memorial. Other Massachusetts Hospitals include Berkshire, VA-Boston, Children's, NE Deaconess, VA-Brockton/West Roxbury, Colley-Dickenson, Mass General, Beth Israel, Lahey Clinic, Brigham and Women, NE Medical Center, U-Mass Medical Center, and other Mass hospitals. New York Hospitals include Albany, Samaritan, Leonard, Champlain Valley, Glens Falls, St Peters, United, Moses-Ludington, and other New York hospitals.

Table B-10
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1999

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	4,453	54,371	12	2,910 ± 20	--	
Vermont State Hospital	293	19,815	68	265	117 ± 6	36%
Brattleboro Retreat	712	8,782	12	559	117 ± 9	28%
VA - White River Junction	255	1,493	6	147 ± 2	28 ± 5	14%
Vermont General Hospitals	2,586	20,054	8	1,816 ± 13	241 ± 16	13%
Fletcher Allen	719	8,476	12	566 ± 5	134 ± 10	24%
Central Vermont Medical Center	492	3,738	8	371 ± 3	102 ± 8	27%
Rutland	644	3,156	5	474 ± 4	96 ± 10	20%
Southwest Vermont	34	131	4	32 ± 1	9 ± 1	28%
Springfield	558	4,042	7	390 ± 4	122 ± 9	31%
Northeast VT	15	69	5	15 ± 0.4	4 ± 0.4	27%
Northwestern	12	42	4	12 ± 0.4	2 ± 0.1	17%
North Country	51	155	3	43 ± 1	14 ± 1	33%
Mt. Ascutney	2	5	3	2 ± 0.2	1 ± 0.1	50%
Brattleboro Memorial	19	69	4	18 ± 0.5	9 ± 1	50%
Copley	17	81	5	17 ± 0.5	6 ± 0.3	35%
Porter	8	26	3	8 ± 0.3	2 ± 0.1	25%
Gifford	9	45	5	9 ± 0.3	0 ± 0.0	0%
Grace Cottage	6	19	3	6 ± 0.3	0 ± 0.0	0%
New Hampshire General Hospitals	503	3,099	6	379 ± 3	81 ± 7	21%
Mary Hitchcock	366	2,308	6	268 ± 3	67 ± 6	25%
Cheshire Hospital	112	680	6	94 ± 2	18 ± 3	19%
Valley Regional	7	27	4	6 ± 0.3	0 ± 0.0	0%
Weeks	0	0	0	0 ±	0 ±	-
Monadnock Community	4	37	9	1 ± 0.1	0 ± 0.0	0%
Other New Hampshire Hospitals	14	47	3	13 ± 0.4	1 ± 0.1	8%
Massachusetts Hospitals	89	898	10		Unknown	
VA - Northhampton	28	421	15			
Franklin County Medical Center	2	6	3			
North Adams	28	261	9			
Baystate Medical Center	3	20	7			
Other Massachusetts Hospitals	28	190	7			
New York Hospitals	15	230	15		Unknown	

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Summary data for Vermont general hospitals and New Hampshire general hospitals describe the categories as a whole. The 'total served' by each category is less than the sum of the individual facilities because some patients are served by more than one facility in the same category. The total number of people "also served in other facilities" is less than the sum of the numbers for the individual facilities for the same reason.

Other New Hampshire Hospitals include Alice Peck, Catholic, Androscoggin, Cottage, Elliot, Littleton, Upper CT Valley, Lakes Region, St. Josephs, Frisbie, Nashua Memorial, Parkland, and N. Conway Memorial. Other Massachusetts Hospitals include Berkshire, VA-Boston, Children's, NE Deaconess, VA-Brockton/West Roxbury, Colley-Dickenson, Mass General, Beth Israel, Lahey Clinic, Brigham and Women, NE Medical Center, U-Mass Medical Center, and other Mass hospitals. New York Hospitals include Albany, Samaritan, Leonard, Champlain Valley, Glens Falls, St Peters, United, Moses-Ludington, and other New York hospitals.

Table B-11
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 2000

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	4,664	53,458	11	3,151 ± 22	--	
Vermont State Hospital	261	17,963	69	229	96 ± 6	42%
Brattleboro Retreat	850	11,308	13	692	138 ± 10	20%
VA - White River Junction	260	1,543	6	169 ± 2	34 ± 5	20%
Vermont General Hospitals	2,713	19,075	7	1,981 ± 15	259 ± 17	13%
Fletcher Allen	758	7,525	10	613 ± 5	142 ± 11	23%
Central Vermont Medical Center	491	3,107	6	377 ± 3	99 ± 9	26%
Rutland	702	3,365	5	525 ± 4	107 ± 10	20%
Southwest Vermont	42	159	4	38 ± 1	6 ± 1	16%
Springfield	555	4,108	7	423 ± 4	109 ± 10	26%
Northeast VT	26	105	4	24 ± 1	11 ± 0.3	46%
Northwestern	21	91	4	19 ± 0.5	3 ± 0.2	16%
North Country	38	97	3	36 ± 1	11 ± 1	30%
Mt. Ascutney	12	100	8	8 ± 0.3	2 ± 0.2	25%
Brattleboro Memorial	18	87	5	14 ± 0.4	5 ± 0.5	35%
Copley	21	123	6	20 ± 0.5	6 ± 1	30%
Porter	12	151	13	11 ± 0.3	3 ± 0.2	27%
Gifford	8	35	4	6 ± 0.3	1 ± 0	17%
Grace Cottage	9	22	2	8 ± 0.3	1 ± 0	12%
New Hampshire General Hospitals	492	2,722	6	346 ± 3	77 ± 8	22%
Mary Hitchcock	416	2,321	6	278 ± 3	64 ± 6	23%
Cheshire Hospital	52	258	5	49 ± 1	11 ± 3	22%
Valley Regional	5	36	7	4 ± 0.2	1 ± 0	25%
Weeks	2	3	2	2 ± 0.2	0 ± 0	0%
Monadnock Community	3	40	13	3 ± 0.2	1 ± 0	33%
Other New Hampshire Hospitals	14	64	5	12 ± 0.3	4 ± 0.2	33%
Massachusetts Hospitals	68	650	10		Unknown	
VA - Northhampton	7	61	9			
Franklin County Medical Center	8	74	9			
North Adams	28	303	11			
Baystate Medical Center	0	0	--			
Other Massachusetts Hospitals	25	212	8			
New York Hospitals	20	197	10		Unknown	

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Table B-12
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 2001

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	4,711	56,076	12	3,193 ± 22	--	
Vermont State Hospital	300	19,039	63	267	111 ± 6	42%
Brattleboro Retreat	937	11,054	12	743	147 ± 12	20%
VA - White River Junction	228	1,745	8	157 ± 2	24 ± 4	15%
Vermont General Hospitals	2,644	19,599	7	1,931 ± 14	262 ± 18	14%
Fletcher Allen	715	7,334	10	583 ± 5	129 ± 11	22%
Central Vermont Medical Center	471	3,200	7	379 ± 3	105 ± 9	28%
Rutland	758	4,519	6	548 ± 5	107 ± 11	20%
Southwest Vermont	42	191	5	39 ± 1	4 ± 0.2	10%
Springfield	518	3,930	8	385 ± 4	115 ± 9	30%
Northeast VT	21	61	3	20 ± 0.5	6 ± 1.0	30%
Northwestern	30	105	4	29 ± 0.6	10 ± 0.3	34%
North Country	37	94	3	32 ± 1	2 ± 0.2	6%
Mt. Ascutney	4	16	4	4 ± 0.2	0 ± 0.0	0%
Brattleboro Memorial	10	39	4	10 ± 0.3	5 ± 0.2	50%
Copley	13	38	3	13 ± 0.4	4 ± 0.2	31%
Porter	13	36	3	12 ± 0.3	2 ± 0.2	17%
Gifford	4	10	3	3 ± 0.2	1 ± 0.0	33%
Grace Cottage	8	26	3	8 ± 0.3	3 ± 0.2	38%
New Hampshire General Hospitals	474	3,257	7	356 ± 3	72 ± 7	20%
Mary Hitchcock	398	2,860	7	291 ± 3	64 ± 6	22%
Cheshire Hospital	53	304	6	49 ± 1	14 ± 2	29%
Valley Regional	5	12	2	5 ± 0.2	1 ± 0	20%
Weeks	1	3	3	1 ± 0	0 ± 0	0%
Monadnock Community	3	20	7	3 ± 0.2	3 ± 0.2	100%
Other New Hampshire Hospitals	14	58	4	13 ± 0.4	2 ± 1	13%
Massachusetts Hospitals	71	669	9	Unknown		
VA - Northhampton	4	80	20			
Franklin County Medical Center	4	20	5			
North Adams	38	341	9			
Baystate Medical Center	0	0	--			
Other Massachusetts Hospitals	25	228	9			
New York Hospitals	57	713	13	Unknown		

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APPENDIX C

Caseload Overlap

Table C-1
Caseload Overlap: 1990
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,672 \pm 12	215 \pm 14	13%
Vermont State Hospital	413	128 \pm 7	31%
Brattleboro Retreat	204	42 \pm 4	21%
Veterans Administration	171 \pm 2	16 \pm 4	9%
New Hampshire Hospitals	374 \pm 3	82 \pm 7	22%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		118 \pm 7	34 \pm 4	12 \pm 3	74 \pm 6
Vermont State Hospital	118 \pm 7		7 \pm 1	5 \pm 1	15 \pm 2
Brattleboro Retreat	34 \pm 4	7 \pm 1		1 \pm <.5	8 \pm 1
Veterans Administration	12 \pm 3	5 \pm 1	1 \pm <.1		1 \pm <.1
New Hampshire Hospitals	74 \pm 6	15 \pm 2	8 \pm 1	1 \pm <.1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		7% \pm <.1%	2% \pm <.1%	1% \pm <.1%	4% \pm <.1%
Vermont State Hospital	29% \pm 2%		2% \pm 2%	1% \pm 2%	4% \pm 2%
Brattleboro Retreat	17% \pm 2%	3% \pm 2%		0% \pm 2%	4% \pm 2%
Veterans Administration	7% \pm 2%	3% \pm 2%	1% \pm 2%		1% \pm 2%
New Hampshire Hospitals	20% \pm 2%	4% \pm 2%	2% \pm 2%	0% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-2
Caseload Overlap: 1991
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,596 \pm 11	205 \pm 15	13%
Vermont State Hospital	427	139 \pm 8	33%
Brattleboro Retreat	212	44 \pm 4	21%
Veterans Administration	174 \pm 2	24 \pm 5	14%
New Hampshire Hospitals	410 \pm 3	88 \pm 8	22%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		120 \pm 8	30 \pm 4	13 \pm 3	71 \pm 7
Vermont State Hospital	120 \pm 8		15 \pm 2	11 \pm 2	19 \pm 3
Brattleboro Retreat	30 \pm 4	15 \pm 2		0 \pm 0	12 \pm 2
Veterans Administration	13 \pm 3	11 \pm 2	0 \pm 0		4 \pm 1
New Hampshire Hospitals	71 \pm 7	19 \pm 3	12 \pm 2	4 \pm 1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		8% \pm < .1%	2% \pm < .1%	1% \pm < .1%	4% \pm < .1%
Vermont State Hospital	28% \pm 2%		3% \pm 2%	3% \pm 2%	4% \pm 2%
Brattleboro Retreat	14% \pm 2%	7% \pm 2%		0% \pm 2%	6% \pm 2%
Veterans Administration	8% \pm 2%	7% \pm 2%	0% \pm 2%		2% \pm 2%
New Hampshire Hospitals	17% \pm 2%	5% \pm 2%	3% \pm 2%	1% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-3
Caseload Overlap: 1992
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,609 \pm 12	179 \pm 14	11%
Vermont State Hospital	349	104 \pm 7	30%
Brattleboro Retreat	215	57 \pm 4	27%
Veterans Administration	164 \pm 2	28 \pm 4	17%
New Hampshire Hospitals	386 \pm 3	70 \pm 7	18%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		87 \pm 7	46 \pm 4	17 \pm 3	56 \pm 6
Vermont State Hospital	87 \pm 7		12 \pm 1	9 \pm 2	14 \pm 2
Brattleboro Retreat	46 \pm 4	12 \pm 1		2 \pm 0.2	15 \pm 1
Veterans Administration	17 \pm 3	9 \pm 2	2 \pm 0.2		4 \pm 0.9
New Hampshire Hospitals	56 \pm 6	14 \pm 2	15 \pm 1	4 \pm 0.9	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		5% \pm < .1%	3% \pm < .1%	1% \pm < .1%	3% \pm < .1%
Vermont State Hospital	25% \pm 2%		3% \pm 2%	2% \pm 2%	4% \pm 2%
Brattleboro Retreat	21% \pm 2%	6% \pm 2%		1% \pm 2%	7% \pm 2%
Veterans Administration	10% \pm 2%	5% \pm 2%	1% \pm 2%		2% \pm 2%
New Hampshire Hospitals	15% \pm 2%	4% \pm 2%	4% \pm 2%	1% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-4
Caseload Overlap: 1993
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,589 \pm 11	195 \pm 15	12%
Vermont State Hospital	323	114 \pm 6	35%
Brattleboro Retreat	267	69 \pm 5	26%
Veterans Administration	187 \pm 2	19 \pm 4	10%
New Hampshire Hospitals	495 \pm 4	95 \pm 9	19%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		107 \pm 6	39 \pm 4	10 \pm 3	66 \pm 7
Vermont State Hospital	107 \pm 6		9 \pm 1	5 \pm 0.6	13 \pm 2
Brattleboro Retreat	39 \pm 4	9 \pm 1		2 \pm 0.6	33 \pm 3
Veterans Administration	10 \pm 3	5 \pm 0.6	2 \pm 0.6		4 \pm 0.8
New Hampshire Hospitals	66 \pm 7	13 \pm 2	33 \pm 3	4 \pm 0.8	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		7% \pm <.1%	2% \pm <.1%	1% \pm <.1%	4% \pm <.1%
Vermont State Hospital	33% \pm 2%		3% \pm 2%	2% \pm 2%	4% \pm 2%
Brattleboro Retreat	15% \pm 2%	3% \pm 2%		1% \pm 2%	12% \pm 2%
Veterans Administration	6% \pm 2%	3% \pm 2%	1% \pm 2%		2% \pm 2%
New Hampshire Hospitals	13% \pm 1%	3% \pm 1%	7% \pm 1%	1% \pm 1%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-5
Caseload Overlap: 1994
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,652 \pm 12	217 \pm 16	13%
Vermont State Hospital	344	100 \pm 7	29%
Brattleboro Retreat	296	79 \pm 5	27%
Veterans Administration	192 \pm 3	30 \pm 6	16%
New Hampshire Hospitals	558 \pm 5	107 \pm 10	19%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		93 \pm 7	51 \pm 4	17 \pm 4	84 \pm 8
Vermont State Hospital	93 \pm 7		11 \pm 2	6 \pm 1	10 \pm 2
Brattleboro Retreat	51 \pm 4	11 \pm 2		6 \pm 1	24 \pm 3
Veterans Administration	17 \pm 4	6 \pm 1	6 \pm 1		8 \pm 2
New Hampshire Hospitals	84 \pm 8	10 \pm 2	24 \pm 3	8 \pm 2	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		6% \pm < .1%	3% \pm < .1%	1% \pm < .1%	5% \pm < .1%
Vermont State Hospital	27% \pm 2%		3% \pm 2%	2% \pm 2%	3% \pm 2%
Brattleboro Retreat	17% \pm 1%	4% \pm 1%		2% \pm 1%	8% \pm 1%
Veterans Administration	9% \pm 2%	3% \pm 2%	3% \pm 2%		4% \pm 2%
New Hampshire Hospitals	15% \pm 2%	2% \pm 2%	4% \pm 2%	1% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-6
Caseload Overlap: 1995
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,568 \pm 12	240 \pm 16	15%
Vermont State Hospital	330	111 \pm 7	34%
Brattleboro Retreat	421	122 \pm 7	29%
Veterans Administration	200 \pm 3	29 \pm 5	14%
New Hampshire Hospitals	546 \pm 5	130 \pm 10	24%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		93 \pm 7	82 \pm 6	16 \pm 4	93 \pm 8
Vermont State Hospital	93 \pm 7		20 \pm 3	8 \pm 1	19 \pm 3
Brattleboro Retreat	82 \pm 6	20 \pm 3		7 \pm 1	43 \pm 4
Veterans Administration	16 \pm 4	8 \pm 1	7 \pm 1		4 \pm 1
New Hampshire Hospitals	93 \pm 8	19 \pm 3	43 \pm 4	4 \pm 1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		6% \pm < .1%	5% \pm < .1%	1% \pm < .1%	6% \pm < .1%
Vermont State Hospital	28% \pm 2%		6% \pm 2%	2% \pm 2%	6% \pm 2%
Brattleboro Retreat	20% \pm 1%	5% \pm 1%		2% \pm 1%	10% \pm 1%
Veterans Administration	8% \pm 2%	4% \pm 2%	3% \pm 2%		2% \pm 2%
New Hampshire Hospitals	17% \pm 1%	3% \pm 1%	8% \pm 1%	1% \pm 1%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-7
Caseload Overlap: 1996
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,781 \pm 13	236 \pm 16	13%
Vermont State Hospital	289	101 \pm 6	35%
Brattleboro Retreat	486	127 \pm 8	26%
Veterans Administration	182 \pm 3	20 \pm 4	11%
New Hampshire Hospitals	480 \pm 4	116 \pm 9	24%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		82 \pm 5	92 \pm 6	14 \pm 3	87 \pm 8
Vermont State Hospital	82 \pm 5		20 \pm 2	7 \pm 0.7	11 \pm 2
Brattleboro Retreat	92 \pm 6	20 \pm 2		2 \pm 1	38 \pm 4
Veterans Administration	14 \pm 3	7 \pm 0.7	2 \pm 1		4 \pm 1
New Hampshire Hospitals	87 \pm 8	11 \pm 2	38 \pm 4	4 \pm 1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		5% \pm < .1%	5% \pm < .1%	1% \pm < .1%	5% \pm < .1%
Vermont State Hospital	28% \pm 2%		7% \pm 2%	2% \pm 2%	4% \pm 2%
Brattleboro Retreat	19% \pm 1%	4% \pm 1%		0% \pm 1%	8% \pm 1%
Veterans Administration	8% \pm 2%	4% \pm 2%	1% \pm 2%		2% \pm 2%
New Hampshire Hospitals	18% \pm 2%	2% \pm 2%	8% \pm 2%	1% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-8
Caseload Overlap: 1997
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,775 \pm 13	260 \pm 14	15%
Vermont State Hospital	314	129 \pm 7	41%
Brattleboro Retreat	536	130 \pm 7	24%
Veterans Administration	146 \pm 2	25 \pm 3	17%
New Hampshire Hospitals	374 \pm 4	83 \pm	22%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		109 \pm 6	99 \pm 7	14 \pm 2	67 \pm 5
Vermont State Hospital	109 \pm 6		19 \pm 3	10 \pm 1	7 \pm 1
Brattleboro Retreat	99 \pm 7	19 \pm 3		3 \pm 1	26 \pm 3
Veterans Administration	14 \pm 2	10 \pm 1.4	3 \pm 1		1 \pm 0.3
New Hampshire Hospitals	67 \pm 5	7 \pm 1	26 \pm 3	1 \pm 0	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		6% \pm < .1%	6% \pm < .1%	1% \pm < .1%	4% \pm < .1%
Vermont State Hospital	35% \pm 2%		6% \pm 2%	3% \pm 2%	2% \pm 2%
Brattleboro Retreat	18% \pm 1%	4% \pm 1%		1% \pm 1%	5% \pm 1%
Veterans Administration	10% \pm 2%	7% \pm 2%	2% \pm 2%		1% \pm 2%
New Hampshire Hospitals	18% \pm 1%	2% \pm 1%	7% \pm 1%	0% \pm 1%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-9
Caseload Overlap: 1998
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,717 \pm 12	230 \pm 16	13%
Vermont State Hospital	270	98 \pm 6	36%
Brattleboro Retreat	485	134 \pm 8	28%
Veterans Administration	141 \pm 2	20 \pm 3	14%
New Hampshire Hospitals	395 \pm 3	85 \pm 6	22%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		87 \pm 6	101 \pm 7	10 \pm 2	62 \pm 5
Vermont State Hospital	87 \pm 6		15 \pm 2	6 \pm 1	8 \pm 2
Brattleboro Retreat	101 \pm 7	15 \pm 2		7 \pm 1	32 \pm 3
Veterans Administration	10 \pm 2	6 \pm 1	7 \pm 1		0 \pm 0
New Hampshire Hospitals	62 \pm 5	8 \pm 2	32 \pm 3	0 \pm 0	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		5% \pm <.1%	6% \pm <.1%	1% \pm <.1%	4% \pm <.1%
Vermont State Hospital	32% \pm 2%		6% \pm 2%	2% \pm 2%	3% \pm 2%
Brattleboro Retreat	21% \pm 1%	3% \pm 1%		1% \pm 1%	7% \pm 1%
Veterans Administration	7% \pm 2%	4% \pm 2%	5% \pm 2%		0% \pm 2%
New Hampshire Hospitals	16% \pm 1%	2% \pm 1%	8% \pm 1%	0% \pm 1%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-10
Caseload Overlap: 1999
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,816 \pm 13	241 \pm 16	13%
Vermont State Hospital	266	117 \pm 6	44%
Brattleboro Retreat	560	117 \pm 9	21%
Veterans Administration	147 \pm 2	28 \pm 5	19%
New Hampshire Hospitals	379 \pm 3	81 \pm 7	21%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		109 \pm 6	88 \pm 7	14 \pm 4	57 \pm 5
Vermont State Hospital	109 \pm 6		12 \pm 2	6 \pm 1	9 \pm 1
Brattleboro Retreat	88 \pm 7	12 \pm 2		5 \pm 1	24 \pm 4
Veterans Administration	14 \pm 4	6 \pm 1	5 \pm 1		4 \pm 1
New Hampshire Hospitals	57 \pm 5	9 \pm 1	24 \pm 4	4 \pm 1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		6% \pm < .1%	5% \pm < .1%	1% \pm < .1%	3% \pm < .1%
Vermont State Hospital	41% \pm 2%		4% \pm 2%	2% \pm 2%	3% \pm 2%
Brattleboro Retreat	16% \pm 1%	2% \pm 1%		1% \pm 1%	4% \pm 1%
Veterans Administration	10% \pm 3%	4% \pm 3%	3% \pm 3%		3% \pm 3%
New Hampshire Hospitals	15% \pm 1%	2% \pm 1%	6% \pm 1%	1% \pm 1%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-11
Caseload Overlap: 2000
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,981 \pm 15	259 \pm 17	13%
Vermont State Hospital	229	96 \pm 6	42%
Brattleboro Retreat	692	138 \pm 10	20%
Veterans Administration	169 \pm 2	34 \pm 5	20%
New Hampshire Hospitals	346 \pm 3	77 \pm 8	22%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		87 \pm 5	113 \pm 9	27 \pm 4	55 \pm 6
Vermont State Hospital	87 \pm 5		10 \pm 2	9 \pm 1	3 \pm 1
Brattleboro Retreat	113 \pm 9	10 \pm 2		4 \pm 2	23 \pm 4
Veterans Administration	27 \pm 4	9 \pm 1	4 \pm 2		2 \pm 1
New Hampshire Hospitals	55 \pm 6	3 \pm 1	23 \pm 4	2 \pm 1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		4% \pm <.1%	6% \pm <.1%	1% \pm <.1%	3% \pm <.1%
Vermont State Hospital	38% \pm 2%		5% \pm 2%	4% \pm 2%	1% \pm 2%
Brattleboro Retreat	16% \pm 1%	2% \pm 1%		1% \pm 1%	3% \pm 1%
Veterans Administration	16% \pm 2%	5% \pm 2%	2% \pm 2%		1% \pm 2%
New Hampshire Hospitals	16% \pm 2%	1% \pm 2%	7% \pm 2%	1% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table C-12
Caseload Overlap: 2001
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,931 \pm 14	262 \pm 18	14%
Vermont State Hospital	267	111 \pm 6	42%
Brattleboro Retreat	743	147 \pm 12	20%
Veterans Administration	157 \pm 2	24 \pm 4	15%
New Hampshire Hospitals	356 \pm 3	72 \pm 7	20%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		99 \pm 5	124 \pm 11	16 \pm 3	49 \pm 6
Vermont State Hospital	99 \pm 5		16 \pm 2	6 \pm 1	6 \pm 1
Brattleboro Retreat	124 \pm 11	16 \pm 2		6 \pm 1	25 \pm 4
Veterans Administration	16 \pm 3	6 \pm 1	6 \pm 1		3 \pm 1
New Hampshire Hospitals	49 \pm 6	6 \pm 1	25 \pm 4	3 \pm 1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		5% \pm <.1%	6% \pm <.1%	1% \pm <.1%	3% \pm <.1%
Vermont State Hospital	37% \pm 2%		6% \pm 2%	2% \pm 2%	2% \pm 2%
Brattleboro Retreat	17% \pm 1%	2% \pm 1%		1% \pm 1%	3% \pm 1%
Veterans Administration	10% \pm 2%	4% \pm 2%	4% \pm 2%		2% \pm 2%
New Hampshire Hospitals	14% \pm 2%	2% \pm 2%	7% \pm 2%	1% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

APPENDIX D

Data Sources

Methodology

References

Data Sources

The profile of inpatient behavioral health care services provided to residents of the state of Vermont presented in this report are based on analysis of data sets from three sources: the statewide hospital discharge data sets maintained by the Vermont Department of Health, the Vermont State Hospital database maintained by the state Department of Developmental and Mental Health Services, and an extract from the database of the Brattleboro Retreat, Vermont's only private psychiatric hospital.

The statewide Hospital Discharge Data Set includes records that describe every episode of hospitalization in Vermont general hospitals and the Veterans Administration Hospital in White River Junction, as well as every episode of hospitalization of Vermonters in New Hampshire, Massachusetts, and neighboring counties of New York State. Records that describe episodes of hospitalization of Vermonters that were categorized under the Mental Health and Substance Abuse Major Diagnostic Categories (MDCs) were abstracted by Health Department staff and provided to the research team. Each record included the date of birth, gender, and zip code of the patient, the beginning and end dates that define each episode of hospitalization, a facility identifier, diagnostic codes, and Diagnostic Related Group (DRG) codes associated with each episode. The records do not include a unique patient identifier. The Hospital Discharge Data Set provided information on 38,897 episodes of hospitalization in 15 general hospitals in Vermont, 42 general hospitals in other states, and 4 veterans administration hospitals.

Data on episodes of hospitalization that occurred at the Vermont State Hospital (the state's only public psychiatric facility) were obtained from a standard State Hospital Inpatient Episode Data Set (Leginski, et. al., 1989). Records that describe every hospitalization of an adult at the state hospital during 1990 through 2001 were abstracted by the research team. This data set contains information on the date of birth, gender, and zip code of each patient, the beginning and end dates of each episode, and diagnostic codes. The Vermont State Hospital data set also includes a unique patient identifier that was used to validate the estimation procedures described below. The Vermont State Hospital data set provided information on 4,455 episodes of hospitalization that involved 2,154 unique individuals.

Data on episodes of hospitalization of Vermonters that occurred at the Brattleboro Retreat were provided to the project by that institution. Records included information on the date of birth, gender and zip code of each patient, the beginning and end dates of each episode, and diagnostic codes for all Vermont residents. (Since historical zip code information was not maintained by The Retreat, records were selected on the basis of current residence, even for discharged patients.) The Brattleboro Retreat data set also included a unique patient identifier that was used to validate the estimation procedures. The Brattleboro Retreat data set provided information on 6,711 episodes of hospitalization involving 4,214 Vermonters.

Together, these data sets provide a comprehensive accounting of the amount of inpatient behavioral health care provided to Vermonters during 1990 through 2001. The major

shortcoming of this aggregation of data sets is the lack of unique client identifiers that would allow the research team to determine the number of people who were hospitalized for behavioral health care, and to determine the degree to which individuals are served in more than one type of facility. The method of Probabilistic Population Estimation described below is designed to allow researchers and evaluators to address these and other questions about the number of people served and the number of people shared by different service sectors when these sectors do not share a common client identifier.

Methodology

Many of the patient counts presented in this report are based on Probabilistic Population Estimation, a statistical procedure that allows policy analysts and evaluators to answer two basic questions that have frequently remained unanswered because existing data sets lack unique person identifiers across organizations and service sectors. “How many people have contact with a service system?” and “How many people are served by more than one organization or service system?” The ability to provide probabilistic estimates (with known confidence intervals) of these basic parameters of service systems is particularly valuable where issues of confidentiality or organizational complexity limit the availability of unique identifiers (Pandiani, Banks, and Schacht, 1998).

Probabilistic Population Estimation is a statistical procedure derived from a solution to the classic mathematical “coupon collector problem” that was provided by Feller (1957). His problem was determining the number of randomly distributed collector cards that needed to be acquired in order to complete a set. His solution was based on the fact that the probability of adding a new card to the collection changes whenever a card is added. In the problem being addressed here, the number of unique individuals is analogous to the number of collector cards necessary to complete the set, and the number of dates of birth is analogous to the number of different collector cards in the collection.

In order to derive the estimate of the number of people represented in a data set that does not contain a unique client identifier, the complete data set was broken into smaller data subsets in which all records have the same gender and year of birth (e.g., all records for men born in 1965). The number of distinct birthdays that occurred in each data subset was counted. The number of people necessary to produce the observed number of birthdays was calculated using the following formula:

$$P_j(l_j) = \sum_{i=1}^{l_j} \frac{365}{365 - i}$$

where “ P_j ” is the population estimate for subset “ j ”, and “ l ” is the number of birthdays observed in the year. Confidence intervals for the estimate may be calculated using a similar procedure.

Estimates of the total number of people represented in the complete data set and the confidence intervals for this estimate were obtained by combining the results for every year of birth and gender cohort in the original data set. Because this procedure uses the number of dates of birth represented in a data set, not the number of records in the data set, the data set may include multiple records for individual people (e.g., event or episode records).

Unduplicated numbers of people served overall, for each service sector, and for each Vermont county were determined using Probabilistic Population Estimation. Rates of hospitalization for behavioral health care were calculated using the actual population for each year (1990 through 1999) for the state as a whole, and for each geographical region. The utilization rates for people in different age and gender categories reported in Appendix C are based on age and gender specific population estimates.

In order to probabilistically determine the number of people shared across data sets

that do not include a common person identifier, the sizes of three populations are determined and the results are compared. First, the number of people represented in each of two data sets (for instance one data set with state hospital patients and another data set with private psychiatric hospital patients) is determined. A third data set is formed by combining the two original data sets and determining the number of people represented in the combined data set.

The number of people who are shared by the two data sets is the difference between the sum of the numbers of people represented in the two original data sets and the number of people represented in the combined data set. This result occurs because the sum of the number of people represented in the two original data sets will include a double count of every person who is represented in both data sets. The number of people represented in the combined data set does not include this duplication. The difference between these two numbers is the size of the duplication between the two original data sets, the size of the caseload overlap.

When no one is represented in both data sets, the number of people represented in the combined data set is equal to the sum of the numbers of people represented in each of the original data sets; the data sets are mutually exclusive. When every person represented in the smaller of the original data sets is also represented in the larger of the two original data sets, the number of people represented in the combined data set is equal to the number of people represented in the larger of the two original data sets.

In terms of mathematical set theory (Whitehead and Russell, 1927), the intersection of two sets ($A \cap B$) is the difference between the sum of the sizes of the two sets ($A + B$) and the union of the two sets ($A \cup B$):

$$(A \cap B) = A + B - (A \cup B)$$

The information on the number of people served in multiple service sectors reported in Appendix B are based on probabilistic estimation of caseload overlap.

Probabilistic Population Estimation provides valid and reliable estimates of population size that can be used to measure treated prevalence of disorders (Banks and Pandiani, 1998) and access to care (Pandiani, Banks, and Gauvin, 1997). Probabilistic determination of caseload overlap can be used to measure service system integration (Pandiani, Banks and Schacht, 1999) among a variety of service sectors. When caseload overlap is measured over time, powerful measures of treatment outcome can be produced (Banks, Pandiani, et. al., 1998, Banks, Pandiani, et. al., 1999, Pandiani, Banks and Schacht, 2001). For more information on the method of Probabilistic Population Estimation see (Banks and Pandiani, 2001).

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